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BALTIMORE, DECEMBER 13, 1906.

APPRECIATION.

Governor N. C. Blanchard of Louisiana, in renewing his subscription to the MANUFACTURERS' RECORD, writes:

I wish it was so I could give the MANUFACTURERS' RECORD a hundred subscriptions, for I appreciate the good work it is doing for the South's development.

Captain C. Leighton Foxwell of Boston, Mass., writes:

You ask if I want your paper. Does a baby want its mother's milk?

EXPANSION OF COMMERCE.

A study of the foreign trade of the various nations shows an expansion which gives some indication of the vast development in commerce and industry throughout all the civlized world. Familiar as we are in this country with the great increase in the foreign trade of the United States, our imports and exports now aggregating over $3,000,000,000, we are not quite so familiar as we should be with the fact that a similar expansion is going on elsewhere. The *Iron and Coal Trades Review* of London, in discussing this situation, says:

One of the wonders of the modern world—a wonder much greater in its origin, its development and its actual magnitude than any one of the seven wonders of the Old World—is the extraordinarily large international trade of the United Kingdom, both absolutely and relatively to that of other countries. This phenomenon has probably been as marked in 1906 as in any previous year, if, indeed, it is not more so.

Then pointing out that the United Kingdom has less than one-half as great a population as the United States, and that its resources are less than ours, the *Review* shows that for the first eight months of the present calendar year the United Kingdom has beaten the United States alike in import and export trade, and that the total volume of the two has exceeded by over $900,000,000 the value of the corresponding trade of the United States. Commenting on this the *Review* says:

The principal elements in the huge volume of differences represented in these figures consist in our exports of coal and iron and our imports of iron ore and iron products. In these we are ahead of all other nations. The United Kingdom excels in two other directions. We consume a much larger volume of non-indigenous food than the United States, and we are also greater per capita buyers of articles de luxe, among which wines and tobacco in its various forms occupy a prominent position.

The conditions which prevail in Great Britain as to foreign trade are likewise seen in Germany, whose foreign commerce for 1906 is exceeding anything in the previous history of that country. The increase in the imports and exports of Germany during the first six months of this year has been $260,000,000 over the corresponding time of last year. France has likewise increased, and in the first eight months of the year the gain was $100,000,000, while Belgium shows a gain of $85,000,000. Other countries are also showing a material increase, Egypt, Japan, British India and Canada all being in the list of countries whose foreign trade is expanding, Japan alone of all the leading countries being the only one that has materially reduced her imports. Commenting on the gain in Germany and France the *Review* says:

This is a stupendous stride when one recollects what a relatively small thing the foreign commerce of Germany was only a few years ago. The iron and steel exports and both the imports and the exports of coal have played a prominent part in the German expansion of the present year. Alike in the imports and in the exports of coal, the development in 1906 has exceeded that of any previous year. This has also been the case with the imports of iron ore and the exports of iron and steel. One of the explanations of the large increase in German imports has been the greater volume of iron ore, which Germany increasingly calls for and has increasing difficulty in procuring. The prospects of the future in this respect are not satisfactory to German ironmasters, seeing that Sweden and Spain are alike looking forward to limitation of ore exports by taxation or otherwise. France is increasing her imports of coal and iron ore and her exports of raw and finished iron and steel. This process is likely to continue.

This world-wide expansion of commerce is one of the most remarkable events of modern times. In considering trade conditions it has not been taken fully into account by the majority of people, and hence their failure to fully grasp the wonderful business activity which is prevailing throughout the world.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 70, 71 and 72.

RAILROAD FREIGHT CONGESTION MAKES IMPERATIVE RIVER AND HARBOR IMPROVEMENTS.

Overwhelmed by the magnitude of the country's expanding traffic, our transportation facilities are proving unequal to the strain. Our material development has already far outgrown our railroads. Unless our advancement is to be halted by the lack of machinery necessary for carrying on business, that is, the lack of the facilities for handling freight, at least $5,000,000,000 must be expended during the next 10 years in the extension of the railroads of this country. This would mean that within that period we must increase by at least 50 per cent. our entire railroad facilities. Really, they should be very nearly doubled, for in all probability traffic will double. It is practically certain that 10 years hence our iron production will have advanced from the 25,000,000 tons of today to an annual output of nearly, if not quite, 50,000,000 tons, and that against the 425,000,000 tons of coal mined in 1906 we will by 1916 mine nearly double that quantity. The production of Portland cement, which has advanced with unequaled growth from 8,000,000 barrels six years ago to 40,000,000 barrels, must, with the increase of concrete construction, double and quadruple within 10 years. In six years the value of our farm products has advanced from $4,700,000,000 to nearly $7,000,000,000. In the same period the value of our farm property has risen from $20,400,000,000 to $28,000,000,000. This gain in the last six years in the value of farm property is equal to about 60 per cent. of the total capital invested in all the manufacturing interests of the country. It is more than two-thirds as much as the total deposits in all the banks—national, State, private and savings banks—and loan and trust companies throughout the land. The value of our manufactured products now aggregates about $17,000,000,000 a year, our forestry and mining products $3,000,000,000, and agriculture nearly $7,000,000,000. This make a total of $27,000,000,000, against $18,800,000,000 six years ago, and $12,400,000,000 in 1890. Marvelous, indeed, has been this expansion in agriculture and in manufactures. Though more pronounced in the United States than anywhere else on earth, this expansion is world-wide in its sweep. Great as have been the results in the development of business during the last 10 years, the future holds out far greater potentialities. Limitless, in fact, are the certainties of future expansion if we can adequately extend our facilities for expeditiously and cheaply handling traffic.

Though nearly every railroad in the country has for several years been striving to the utmost limit of its financial ability to increase its rolling stock and improve its track, there is scarcely a line that is not overcrowded with business. In every direction there is freight congestion. Merchants and manufacturers find it impossible to deliver goods promptly, because the roads cannot move their traffic with dispatch. Western grain farmers and Southern cotton planters are unable to make rapid shipments because of the lack of rolling stock and likewise the lack of track. The lumber trade is suffering heavy losses from the same cause. Here and there coal famines are threatened because of the inability of the roads to handle the freight offered. Millions of tons of coal in excess of the present output could be mined and find a ready market if railroad facilities could be had. Notwithstanding the struggle of the roads to keep up with it, business is steadily gaining on their facilities. In 1890 the total railroad freight traffic of the country as measured in mile-tons was 79,000,000,000, in 1900 it was 141,000,000,000, and in 1905, 187,000,000,000. With the same average gain per capita as during the last 14 or 15 years we would in 1916 have a total traffic of 350,000,000,000 to 400,000,000,000 mile-tons. These stupendous figures indicate something of the traffic which we must prepare to handle. To this condition add the fact that in the next 10 years our population will be increased by not less than 20,000,000. This in itself is almost equal to the population of the entire South. Then consider that the actual increase in the business of the country within that time will exceed the total volume of trade in the South today. The situation is one of deep concern. It demands the earnest consideration of the country. It is the one weak spot in the business outlook, and more than anything else endangers our prosperity.

These facts enable us to form some conception of the need of far more rapid expansion of transportation facilities than has yet been taken into account. Even though they should stretch to the utmost limit their ability to provide money and be able to add to their investment $5,000,000,000 within the next 10 years, it is questionable whether the railroads would then measure up to the imperative needs of the times.

We may well ask ourselves, shall American development be halted because of our inability to provide the facilities for the trade that awaits the activities of our people? To help meet this problem it is incumbent upon the National Government to begin a policy of the fullest utilization of the great rivers and waterways with which nature has so abundantly provided us. With an expenditure in the next 10 years upon rivers and harbors of $500,000,000, as against the $5,000,000,000 or more which the railroads must undertake to provide for their work, we can so improve river transportation as to make it possible to lessen the burden upon the country due to inadequate transportation facilities. Nature has blessed us with great highways upon which to carry on a commerce which could be made worth untold millions to the country, but we have almost ignored and counted as of no value this priceless gift. It is as though we had been given

tens of thousands of miles of well-built railroads, here and there obstructed by a rock which needed to be removed ere these steel highways could be utilized, and we were unwilling to spend the few dollars required to clear the tracks. Our rivers are worth more than all the capital invested in the railroads of the country; in fact, they have a value from the strictly economic point of view of their possibility as freight carriers and freight-rate regulators beyond any money estimate that could be put upon them. Yet so lightly have they been esteemed that as a nation we have been unwilling to spend the few millions necessary to remove the rocks and clean out the channels. Do this, and there would be free movement for thousands of additional water craft. They would not only increase our transportation facilities, but by the cheap handling of the coarser or heavier products would expand the railroad traffic of the higher class of goods, to the profit alike of the country and the roads. Can we imagine that a great corporation with limitless resources at its command, owning thousands of miles of railroad track, would be so indifferent to its own future as to be unwilling to remove the few rocks or the sand that through some upheaval of nature had here and there covered a few miles of its track? The very suggestion is in itself absurd. Such a course would not, however, be more absurd economically than has been the policy of the American people with reference to their rivers and harbors. The time has come in the history of American development when every possible means which can be provided for the handling of traffic must be utilized, and utilized promptly. The condition which we face today is one of supreme importance. It is one upon which the unchecked progress and prosperity of the country depends. For this reason, if for no other, it is incumbent upon the American people, through the National Congress, to spend money with no niggardly hand to improve all of our great waterways, both inland and coastwise. These improvements cannot be made by individual capitalists nor by corporations. Our rivers and harbors are national in interest, and of necessity the nation alone, acting through Congress, can provide the money for their fullest utilization. Money so spent would not be wasted. It would not be scattered to the winds. On the contrary, it would be an investment which would yield to the whole country a larger percentage of profit than any other within the range of man's knowledge. Five hundred million dollars spent within 10 years on river and harbor improvements would certainly yield an annual profit to the business interests of the country far in excess of that amount. The nation has sanctioned the spending of hundreds of millions to construct an Isthmian canal. In this it has done wisely. When the Atlantic and the Pacific have been united by the Panama canal the world's commerce will be revolutionized in our favor. But this canal, the most stupendous work of this era, is not as important to our country as the deepening of our rivers and harbors. The proper leveeing of the Mississippi river would reclaim overflowed lands which could be made to yield over $500,000,000 of farm products a year, while millions more would be saved from destruction. The deepening of the Ohio and its tributaries would furnish transportation facilities for the vast but congested traffic of the world's iron and steel center. But why particularize? Throughout the country, from the Atlantic to the Pacific, from the Lakes to the Gulf, there are opportunities for improvement where every dollar expended would annually return 100 per cent. to national profit and individual gain.

We talk about the danger of wars and the necessity by the building of a great navy of protecting ourselves against any possible encroachments by other nations. Would we, indeed, make ourselves impregnable against war and commercial rivalry? Then give to our people the fullest scope for the development of our resources. Open our rivers, deepen our harbors, and the enlargement of our wealth and power will put this country beyond rivalry in the world's commerce or the possible successful attack in war by any power or any possible combination of powers on earth. Nature has blessed this favored land with resources so vast and varied for the creation of employment in the field and in the factory and for the development of boundless wealth that we scarcely realize the potentialities of the future. We are adding to our accumulated wealth about $500,000,000 a month. We can continue at even a greater rate until we lead all the world in financial power, for we have the resources out of which to create boundless wealth. The foundation of the world's industrial system is coal. That is the moving power on land and on sea. Of coal the United States has 350,000 square miles, against 50,000 square miles for all Europe. With seven times Europe's potentiality in the energizing power of coal, we have other resources to equal our fuel. In this period of the development of electrical energy through the utilization of water-powers we can, as in coal, more than match Europe. In iron and steel we are making nearly one-half of the output of the world. Of copper, upon which electrical expansion depends, we are producing far more than half. In iron and steel and copper we can dominate the world's metallurgical interests. To this add cotton, which in importance is second only to iron and steel. Upon it the wealth of Great Britain and the Continent largely depends. Its production is practically monopolized by this country. We have 80 per cent. of the world's annual cotton output. This gives us an absolute domination of this, the second greatest industry on earth, such as no other country holds on any industry worthy to be counted in such a cataloging of natural resources. Of wheat and corn we produce 3,500,000,000 bushels, against 2,000,000,000 for all Europe. But why attempt to enumerate our resources? The very cream of the good things of earth as the foundation for man's highest development and the mightiest expansion of human activities has been given with a lavish hand to this country. It is within our power to so utilize these resources as to immeasurably add to the wealth and happiness of the world. As an essential part of this program, the time has come when the American people should utilize to the fullest extent their rivers and harbors, the improvement of which will enable us as a nation to realize upon our boundless resources.

Everywhere are seen evidences of the great burst of activity which is taxing the energy and the transportation facilities of all the leading nations of earth. We justly boast of the vast expansion under way in this country and of the increase of our foreign commerce to the point where imports and exports now aggregate over $3,000,000,000. But though the United Kingdom has only half of our population, its foreign trade during the first eight months of this year exceeded that of the United States by $900,000,000. If our foreign trade in proportion to our population was as great as that of the United Kingdom, our exports and imports, instead of reaching $3,000,000,000, as at present, would be $12,000,000,000. This development of foreign trade is as pronounced in Germany as in the United Kingdom, while France, Belgium and Japan all show a rapid expansion in commerce with the outside world. We congratulate ourselves upon what we have accomplished in the development of our manufacturing and agricultural interests, upon the growth of our railroads and upon our foreign commerce. But, considered in the light of our natural resources and of the advantages for domestic and foreign trade which nature has given us, we have as yet scarcely begun to work. Shall we in the future, as in the past, pursue the same "penny-wise-and-pound-foolish" plan of almost ignoring the possibilities of our rivers and harbors, or shall we enter upon a broad campaign of improvement to match our unequaled opportunities?

SOLVING TWO PROBLEMS AT ONCE.

From different points in the South come reports of investigations by representatives of the National Department of Commerce and Labor into labor conditions as bearing upon the question of immigration. A broad and wise view of that question is taken in the following letter to the MANUFACTURERS' RECORD from Mr. W. C. McClure, manager at Columbus, Miss., of the Refuge Cotton Oil Co. He says:

The salient question to be considered in the matter of immigration to the South is to secure such immigrants as the South most needs. Regarding our particular business, the negro labor is best suited to our work, and we usually get enough of this labor, as scarcity, while occasionally upon us, is mostly brought about at such periods as the demand for labor to pick the cotton crop, etc., is heavy.

In our opinion the South needs a good class of Italian and German immigrants who have hitherto followed agricultural pursuits and who will come here and settle in squads, to be contented and make money at farming with the proper scientific effort and judicious energy. "The farmer is the man who feeds us all" is an old adage that is true. It is also true that the South needs more farmers. In view of the climatic conditions prevailing in the South farming can be made more profitable here than in any other section of the Union. It is also quite evident that the attention given to the development of the South's agricultural possibilities is not commensurate nowadays with that devoted to progress and the betterment of other lines—commercial, industrial and the like. We cannot afford to neglect the farmer and his business. If we could settle the thousands of acres of rich alluvial lands with the proper foreign immigrant, and the many thousand acres of so-called "poor land" of the South (which can be purchased much cheaper than the richer soils, and where, with the use of commercial fertilizers, farming can be made more profitable than in other sections, as the attainable profit to the farmer on the investment is greater on account of low land values), the South would be in reality a wonderland. Competition with a good foreigner would make the negro a better worker—a better man. The native white laborer would then train himself to meet the growing demand for skilled labor in the industries of the towns and cities.

Though there is a pressing immediate demand for skilled labor in Southern industries which must be promptly met by attracting such skilled labor from other parts of the world, Mr. McClure is eminently practical in a suggestion as far as insuring permanent growth in the supply of such labor. Notwithstanding appalling difficulties, it is not too late for the negroes in the South to be brought back to efficiency as common laborers and skilled laborers. Outside influences are mainly responsible for the degeneration of the negro in this respect, and outside influences have recently given evidence of a determination to hamper the South in its efforts to secure the most direct means for the reclamation of the negroes—the introduction of hundreds of thousands of thrifty whites. Left to themselves under the malign influences that have well-nigh ruined them, the negroes must surely be wiped out of existence. Brought into competition with foreigners, reinforcing the number of native white workers, they will soon face the strenuous situation of being obliged to work regularly and satisfactorily, or of starving to death. In the United States outside the South there are 55,000,000 whites and about 2,000,000 negroes. In the South there are about 18,000,000 whites and 8,000,000 negroes. With a continuance of the present rate of movement of negroes from the South to the North and West it may be expected that the close of the next decade will find 5,000,000 negroes in those sections and 7,000,000 remaining in the South. If in the meantime the South shall gain through natural increase and through immigration a population of at least 1,000,000 a year, by no means an impossibility, in view of the fact that during the past year something like 200,000 settlers were attracted to that section and in view of the further fact that the long campaign for immigration is having at last most gratifying results, the economic, social and political negro problem will have been reduced to the minimum and the negroes of the South will have ceased to be a drag upon the country's progress.

THE SOUTHERN'S NEW PRESIDENT.

In electing William W. Finley to be president of the company, thus filling the vacancy caused by the death of Samuel Spencer, the directors of the Southern Railway have chosen another genuine son of the South to be the chief executive of the corporation which was formed and built up under the wise administration of his immediate predecessor. Mr. Finley, who is a native of Pass Christian, Miss, is now in the prime of life, and his business career since he was 19 years of age has been in railroad work, traffic affairs being the special line to which most of his attention was directed, although during the last 10 years, when he filled the post of second vice-president of the Southern, his field of energy has naturally broadened with the responsibilities of that office. He comes to the presidency fully equipped to successfully deal with the manifold problems which are ever under the eye and mind of the man whose fortune it is to be at the head of a great transportation company, and the belief that he will dispose of them with good judgment and to the advantage of the railroad and the public which it serves is warranted by the manner in which he has conducted the important office that he has filled for the last decade.

President Finley is quoted in reports from Washington as saying that the company will continue to pursue the policy formulated by its late president, but this conservative utterance does not mean that anything but judicious advancement and expansion will characterize the railroad system and its allied lines under the new executive. Mr. Finley has, indeed, a great task before him, and everyone who knows of him will wish him complete success in perform-

ing it. One of his business associates is reported as describing him as a man than whom none could be more conscientious, clear-headed and straightforward. That is truly a high compliment, and all who have to do with the Southern Railway, either officially or as patrons of its facilities, will be glad to learn that the place of Mr. Spencer is taken by a man so able.

The new president of the Southern comes to the office of chief executive at a time when there is a crisis in the railroad situation with respect to facilities. This situation is particularly trying in the South, and it will not be amiss to express the hope that Mr. Finley's energies will first be directed toward doing his company's share in relieving the burdens which now rest upon commerce and industry owing to lack of equipment and to the failure to properly handle that which is already in hand. But when that is done his labors will only have begun. Every barometer of business indicates that the strain which the future will put upon railroad service will be far greater than that which is now imposed.

THE SOUTH'S BROAD FIELD.

Mr. E. W. Anderson, secretary of the Progressive League, Monroe, La., in a letter to the MANUFACTURERS' RECORD, says:

> We have a great work in front of us. The field is broad, opportunities plentiful. There is room for all in Louisiana, especially in North Louisiana in the vicinity of Monroe, and I hope that we shall be able to convince a great many of the truth of the statement and to get them looking this way.

The field is, indeed broad, and the opportunities are plentiful, not only in North Louisiana, but in every part of the South. There is a wealth of possibilities so great that we can scarcely grasp their magnitude. From the northern limits of West Virginia to the southern boundary of Texas, from the Atlantic and the Gulf far out to Indian Territory and Oklahoma, there are almost limitless opportunities for men of brain or brawn or of capital. West Virginia thinks of its great coal resources and realizes that if its coal could be capitalized at 10 cents a ton it would have wealth enough to buy nearly all the railroads of the United States. Virginia has its many claims of opportunities awaiting the investor, the merchant, the manufacturer and the farmer, and on down through the Carolinas and Tennessee and Kentucky and Georgia to the great iron fields of Alabama—opportunities, opportunities are everywhere. And then out into Mississippi and Louisiana and the Southwest, every section of every State can tell the same story that Monroe tells. But the places in all this wide stretch of territory which are most surely going to win out are the ones which, like Monroe, realize that there is a great work to do and concentrate the united energies of their communities to their upbuilding. There is no room for the drone or the croaker; the day of the pessimist has departed. Great, indeed boundless, are the opportunities. But these opportunities will not become realities except to the people who do their share in the upbuilding of the South. Here and there somebody or some place may get discouraged. It may look like other people or other places are making greater progress. Impatience may creep in, but there should be no room for it. With limitless resources unequaled on earth, with the tide of immigration turning southward at last, with increasing values to farm products and farm properties, the South is on the road to boundless prosperity. It cannot realize all of its aims and ambitions this week or this year or next year. But to the persistent, active, energetic worker, whether that worker be the day laborer, the farmer, the manufacturer or the boy just entering upon life's career, no other section on earth offers such assurances of eventual great success.

CONFUSION IN EDUCATION.

It was perfectly natural, perhaps, for President Edwin A. Alderman, of the University of Virginia, to express the belief that the conference which he had called recently was "epochal in its character." It would be inhuman for a man not to express pride in his own progeny. But epochal of what was the conference conducted under the watchful eye of Ogdenism? The answer should be sought in the utterances of its putative father. It might be sought in the following extract from the introductory address of Dr. Alderman:

> The early colleges and universities undoubtedly had their genesis in the thought of kings and bishops and exclusive classes. The common school, on the other hand, is undoubtedly the product of the Calvinistic spirit, reacting on the aspirations of American democracy. Our modern democracy, ceasing to trouble itself so much about the form of goverment and coming to care more about the social opportunities offered to the masses of men, has brought it about that advanced instruction is everywhere reaching down and elementary instruction is everywhere reaching up.

The lingual glitter in that utterance must have given it a pleasing sound, but it would be interesting if some one, in knowledge of the Calvinistic spirit, should attempt, in the light of history, to parse the profound philosophy concealed somewhere in the phrase that the American common school "is undoubtedly the product of the Calvinistic spirit, reacting on the aspirations of American democracy." It would also be interesting to measure by the Calvinistic spirit as to the functions of the State and as to education the evident purpose of the "epochal" gathering revealed, with diplomatic compliments, in the following statement of Dr. Alderman:

> Between the elementary schools and colleges of Virginia there existed until this year a gap imperfectly bridged by 23 public schools doing more or less high-school work, 43 private academies and several collegiate preparatory departments. These conform to no well-recognized and well-understood standards, and are under no unified control. It goes without saying that most of them are in the hands of men of devotion and scholarship and high character and determined purpose. An intelligent and rapid growth in co-ordinating and unifying these schools is now going on in Virginia under the direction of the State Board of Education, and through the efforts of the examiners, the local school officers and others, and this is doubtless true of other States here represented.

Interpreted into plain English, the "epochal" gathering was apparently designed to further a movement which has been promoted with more or less vigor for nearly 40 years in the South, ever since there was an opportunity given for educational philanthropy to be misdirected in that section, the movement that, in spite of the best sort of intentions, has tended to infect the South with socialism, to cripple the denominational colleges and private schools of various grades as factors in education and to cultivate among the people a spirit of dependence upon an utterly demoralizing conception of the State, and of mendicancy in education, giving the most successful getter from multi-millionarism the greatest repute as an educator. But stock in this country which has breathed the spirit of Calvinism is the stock which has been pre-eminently self-dependent and self-respecting.

It is not unnatural, though alarmingly significant, that the "educational" atmosphere created in the gradual suppression of the forces of real education in this country under the incubus of educational socialism allied to its contradiction, educational alms-giving, should beget a frame of mind that can consider without condemnation the thought that our modern democracy is "ceasing to trouble itself so much about the form of government." To be sure, the framers of the form of American government and the great men of the past hundred years who have insisted upon rigid adherence to the form, except where the form may be changed in accordance with the provision of the fundamental rule of the government, knew nothing of human history, nothing of human nature and were babes in the woods in comparison with the "educational statesmen" whom the last quarter of a century has brought into the limelight of publicity. But those old fellows, the products of the academies, the denominational colleges, the private schools and other institutions before the evil day when, through Ogdenism, they came under the infection of the now well-recognized Educational Trust and its appendages, might be inclined to discover an awful menace in the attempts at co-ordination and unification of control of educational institutions of the country, under the virtual presidency of a National Bureau of Education, and the disburser of educational alms from a $10,000,000 "philanthropy" co-ordinated with similar philanthropies, including the pensioning of professors, aggregating $20,000,000 or $30,000,000. Such a situation is abhorrant to genuine democracy. Those old fellows, those ignoramuses, those foolish believers in a government by law and not by emotions, who laid the foundations of American government and reared it without the thought, perhaps, that some day the structure might have rats in the garret, might, in scanning the present situation, be inclined to a conviction that American scholarship is in a sad plight, that education has become talking about education, or pedemagogy, and that democracy's not troubling itself about the form of government is unwitting euphonism for mobocracy.

RIGHT WORK FOR IMMIGRATION

Mr. G. Gunby Jordan of Columbus, Ga., vice-president of the recently-organized Georgia Immigration Association, writes to the MANUFACTURERS' RECORD as follows:

> The Georgia Immigration Association has no connection whatever with any other immigration commission or society or association. The Georgia Immigration Association is moving a little slowly, simply to be certain that no mistakes will be made, and especially that no violation of the labor laws shall be incurred by it. To that end it has a delegation in Washington at present, and when this association starts its operations it hopes to carry them on without friction or any thouble, real or apparent.

The program thus sketched of the Georgia Immigration Association is a promise of eminently practical results. In the absence of a much-to-be-desired immigration bureau of the State government, this voluntary association of business men identified with the progress and prosperity of Georgia must become the center of immigration activities there. It is wise in maintaining independence in its operations and in thus avoiding the embarrassments of participation in impractical dreams of securing co-operation of all the Southern States in immigration work or becoming victims of unwarranted attempts of fakirs to strengthen their schemes by creating the impression that they are operating as agents of the official South or of organizations within the South. The way for Southern States to secure immigration is for each State to act for itself through properly-constituted authorities, as Maryland, Virginia, South Carolina, Mississippi and Louisiana are doing, or through businesslike organizations or railroad agencies, such as those enjoyed by Georgia, Alabama and Texas, upon the principle that to get immigrants one must go after immigrants. Time spent in "congresses," "conventions" and "conferences" by Southerners in talking about the desirability of immigration to the South, in rehashing generalities everywhere accepted or in flamboyant oratory over any topic of ephemeral interest is just so much time wasted.

THE COTTON SITUATION.

Even if the cotton crop should prove to be as large as the Government's estimate of 12,500,000 bales, there need be no fear on the part of the South of the world's ability to absorb it at a good price. It would be a disaster based on a failure to comprehend the world's cotton situation if the South, frightened by this large yield, should undertake to sell its cotton on a declining market. In the first place, a very large amount of Southern cotton has been seriously damaged in quality. This, unfortunately, by virtue of the provisions of contract sales, can be used for deliveries in the New York market and in this way used to depress the price of cotton. But real cotton suitable for the needs of the spinners is none too plentiful. It is quite safe to say that the world could absorb every bale of good cotton that the South has this year produced at a very considerable advance over present prices, to the benefit of the grower and to the cotton world at large. It is a mistaken idea for the spinner to undertake to "bear" the price of cotton. In the long run this is more disastrous to his interests than to anyone else's. With the rapid expansion in the world's consumptive requirements, with many mills sold ahead for 6 to 12 months, with consumption of cotton fully equal to the total production of good cotton, and in all probability considerably in excess of it, there is no reason why the South should be frightened at 12,500,000 bales. The world needs that much, and needs it badly. The cotton mills in this country and abroad are having a phenomenally active trade at exceedingly profitable prices, and though they might from a narrow, selfish point of view desire to see the raw cotton at a figure which would still further enhance their profits, the MANUFACTURERS' RECORD is sure that the broader men in the trade recognize that this would in the long run be an injury rather than a benefit. The New York cotton-gambling element, the curse of the cotton trade, which under the regulations of the Cotton Exchange giving to the "bear" element a tremendous power over the speculative cotton market, should not be permitted to create a scare in the Southern spot market.

TALKING FOR ROANOKE.

Roanoke, Va., held a banquet Thursday of last week, under the auspices of the Chamber of Commerce of that city, at which there were of members and guests about 200 present. There was speechmaking after the feast, and the program arranged assigned to the speakers some topic of live interest relating to the development of Roanoke. The banquet and meeting were at first proposed by Mr. E. B. Jacobs, secretary of the Chamber of Commerce, and the occasion was designed and arranged for the purpose of giving a new zeal to the work of pushing Roanoke ahead in growth, commerce and manufacture. Speeches were made by Mr. Jacobs, Mayor Joel H. Cutchin, Mr. T. E. Johnson, president of the Norfolk & Western, and others. Roanoke's remarkable history, the influences at work today in her behalf—railroad construction, extension and improvement of facilities—the opportunity for advertisement by making a display at the Jamestown Exposition next year, and the importance of a systematic campaign of advertising throughout the country were some of the topics discussed. The significant fact in connection with the occasion was the intensity of the spirit of progress shown in every spoken word. Taken as an expression of the enterprise which animates the people of Roanoke, this meeting would indicate a degree of energy and determination which must more than duplicate the development that has occurred here in 20 years—a development so conspicuous as to already earn for Roanoke the title of the Magic City.

MISTAKEN.

Booker T. Washington is reported as saying at Atlanta, Ga.:

"I do not hesitate to say that the negro has no ambition to mingle socially with the white race, neither has he any ambition to dominate the white man in political matters."

The first half of that assertion must have been misreported, in view of the fact that of all negroes in the country, Booker T. Washington is probably the most successful as a mingler socially with the white race, though there have been intimations, in the South, that such a mingling has been forced upon him. No negro of sense aspires to dominate the white man, either politically, to which phase of domination Booker seems to confine his thought for the moment, or in any other way. But there are quite a number of fool whites among the particular patrons of Booker, some of them notable members of the group of individuals that Robert C. Ogden has been bringing to the South as "educators and philanthropists" in recent years, who are capable of encouraging negroes to share their own fool notions as to racial equality, fool notions which, if put into effect, would spell woe for the negroes.

WEST VIRGINIA RESOURCES.

The report of the second annual convention of the West Virginia Board of Trade, held at Charleston October 9 and 10, will soon be issued from the press, and promises to be a very interesting volume. It contains a stenographic report of the proceedings, including the addresses of Senator Elkins, Senator W. C. Sproul of Pennsylvania, Governor Dawson, Hon. Henry G. Davis, Dr. I. C. White and others. These addresses are replete with information about the State and its wonderful resources, and the book will be an interesting compendium on West Virginia's great wealth and the magnificent opportunities it offers to the manufacturer, business man and homeseeker. Several thousand copies will be issued, and may be had on application to the secretary's office at Wheeling.

WHAT OTHER SOUTHERN CITIES ARE DOING.

[Editorial in Augusta (Ga.) *Chronicle.*]

That the South is facing a new era in development is a certainty. The widespread acceptance of this fact has caused throughout the section a grand outburst of advertising that bids fair to take some cities to the forefront more rapidly than others.

Yesterday we told briefly the story narrated by the figures in the MANUFACTURERS' RECORD and pointed out how important it was that Augusta get in line with this advance and endeavor to grow rapidly by developing the means at her command. Today we reiterate the story.

If Augustans wish the city to advance, to keep on the crest of the wave that is now sweeping over the Southland, they must do something. It will not do to sit still and allow things to drift. The ship that drifts is a derelict and never reaches port, only swings idly along, a menace to the progress of other ships. Derelicts are dangerous, and have to be destroyed. Don't let Augusta drift. Do something.

According to the MANUFACTURERS' RECORD, other cities are advertising.

Here are several advertisements taken from this week's issue of the MANUFACTURERS' RECORD that tell their own story of community push and enterprise:

"——— ——— is especially attractive to manufacturers, capitalists, farmers, merchants and homeseekers. The business men are always prompt to take an interest in and assist by the investment of capital in meritable industrial projects the advantages of which are properly shown. Especial inducements are offered for the location of factories. The population of ——— is 85,000. General or specific information regarding ——— and its surrounding territory can be obtained by addressing the ——— Industrial Club."

"Free sites for manufacturing purposes. An excellent opportunity for all kinds of manufacturing industries, large and small. Water and rail transportation. Through water navigation to the Gulf all the year round. Up-to-date city. Close proximity to mineral resources and adjacent to best timber lands, hardwood and pine in Alabama. For particulars address Commercial and Industrial Association."

"Population, 30,000. Free sites for the following factories: Cotton mill, woolen mill, cordage mill, wagon factory, plow factory, furniture factory, machine shops. Excellent opportunities for woodworking plants. Five railroads and the Pearl river. Surrounded by splendid territory. Correspondence solicited. ———, secretary, Board of Trade."

"The trade center in the land of opportunity, ——— ———. Offers manufacturing enterprises, unparalleled water-powers, cheap rates for electric power and sites on the line of railway. The Board of Trade invites closest investigation of attractive propositions for factories."

"Wanted, wagon and all other kinds of woodworking plants at ——— ———. The place where they do things. If you are a 'dead one' don't write. We want manufacturing plants that will succeed. We have an unlimited supply of all kinds of timber—oak, ash, gum, cottonwood, hickory, beech, etc. The Mississippi river and four lines of railroad. Healthiest city in the world. Death rate 3 to 1000. We will furnish the site and take a reasonable amount of stock."

What advantages has Augusta? Is there any reason why we should announce to the world that there is money to be made here by the man with capital to invest? Is Augusta possessed of any advantages that other cities do not enjoy? If it is—and every reader of this knows it is—why is not something said about it?

Why should Augusta hide its light under a bushel? Let us resolve to get together in a spirit of friendly rivalry and advertise the city in some way. If we prefer some method other than that used by those cities whose cards in the MANUFACTURERS' RECORD are given above, let us use it. If we are ever going to do anything big, now is the time to begin.

"CHILD-LABOR" TRUTHS.

It is almost useless to suspect that much of the time of the meeting this week in Ohio of the so-called National Child-Labor Committee of New York city will be devoted to a demand for truth in the promotion of social reforms. It is hoped, however, that in sounding the latest tom-tom for the galleries where unthinking enthusiasm dominates, in exposing his device for a misuse and abuse of the machinery of the National Government in making effective a dangerous and revolutionary principle which would be utterly repudiated at the polls by the sane political judgment of the people, Senator Beveridge of Indiana may find occasion to consider certain propositions bearing upon his bill prohibiting acceptance for transportation by carriers of interstate commerce of the products of any factory or mine in which children under 14 years of age are employed.

The great majority of the people of the United States are absolutely opposed to the commercial employment of immature children. But that opposition does not blind the reason and judgment of the country to the fact that proposed remedies for the ills of child labor, especially the remedies promoted under the auspices of the organization which Senator Beveridge may address, may be worse than the disease, and that the attempt to remove by legislation one plague spot from the body politic may result in cancers at its most vital parts.

Young Senator Beveridge will do well to fix his mind upon two or three questions. If Congress may make effective a law preventing the transportation of the products of mines and factories in which children under 14 years are employed, can it not with equal wisdom and propriety fix the age limit for such employment at 16 years, 18 years or 21 years, at one end, or at 40 years, 45 years or 50 years at the other? Does he not know that, in spite of impressions to the contrary, promotion of such paternalism always approaches the public by indirection where frankness would defeat its purpose and makes its initial move by a process calculated to disarm suspicion? Has he read the latest from Cincinnati, Ohio, to the effect that the most recent interpretation of the "child-labor" law of that State permits no boy under 16 years of age and no girl under 18 years to work more than a certain number of hours a week, and can he not perceive in that the head of the snake which, for a generation or more, has been attempting to use the machinery of State or National Government to limit the right, the natural right, of men and women to work as long as they see fit?

Again, if the Government may prohibit the transportation of goods produced in factories and mines employing children under 14 years of age, why may not the Government prohibit the transportation of goods produced on the farms employing children under 14 years of age, especially in view of the fact that more than 60 per cent. of the children under 16 years of age employed in gainful occupations in the United States are in agricultural pursuits? When national legislation affecting the comparatively small proportion of children in mines and factories has been effected, what will prevent agitators from extending the legislation so as to embrace farming and all other occupations?

Senator Beveridge is undoubtedly sincere in his efforts for the betterment of younger people in the country, however radically wrong from every standpoint his methods may be. Because he is honest and is in a position of influence he might lead in an inquiry into the origin of a money-raising advertisement of the so-called National Child-Labor Committee of New York, published November 17 last, which, criticised by the MANUFACTURERS' RECORD, has produced such cogent comments as the following in the Dallas (Texas) *News:*

"Thus we find, even in an advertisement carefully drawn and designed to impress the public mind and to touch the pocket, two material, positive and wholly misleading misstatements. 'What good may be expected from contributions in cash to a campaign depending for its success upon such loose statements as those of the advertisement quoted?' asks the MANUFACTURERS' RECORD. It is a timely question. Use your money in providing a better place for some unfortunate little toiler in a mill. If you will do that no further legislation and no assistance from New York money-gatherers will be needed to drive such a little toiler out without any opportunity at all. In this latter way you will work effectively at the proper place."

SOUTHERN ENGINEERS.

The Engineering Association of the South will hold its annual meeting in Atlanta, Ga., December 14 and 15. Papers will be read on a number of interesting subjects by prominent engineers, including Alexander Bonnerman, chief engineer of the Atlanta, Birmingham & Atlantic Railroad; Hunter McDonald, chief engineer of the Louisville & Nashville Railroad; Professor Branch of the Georgia School of Technology, and others. This association is composed of civil and constructive engineers of Alabama, Georgia and Tennessee. The first session of the meeting Friday evening will be devoted to the president's annual address and to business affairs of the association. Saturday will be given over to visiting engineering structures in and near Atlanta, with a banquet in the evening. The officers of the local organization for the meeting are Messrs. R. M. Clayton, city engineer, president; Arthur Pew, C. E., and R. M. Walker, C. E., vice-presidents, and T. P. Branch, C. E., secretary and treasurer.

A call has been sent to every section of Mississippi requesting that delegates be sent to a conference to be held in Jackson, Miss., December 17 and 18 for the purpose of organizing a State Immigration League, the purpose of which will be to take such steps as necessary to further immigration to the State by efficient white laborers. The movement has met with the endorsement and approval of the leading business organizations and railroads throughout the State, and the call was issued by S. J. Taylor, president of the Jackson Board of Trade, and Fred Muller, secretary of the McComb City Progressive Union.

The Motor Transit Co. of Knox county, Tennessee, has been incorporated with $25,000 capital by A. T. Sanford, Cowan Rodgers, E. O. Mitchell, N. E. Logan and S. O. Houston.

The steamer Antilles has been launched at Philadelphia for the Southern Pacific Company's steamship lines, and is to be used in the service between New Orleans and Havana.

DENATURED LAWMAKING AND "FREE" ALCOHOL.

[Written for the Manufacturers' Record.]

Any great interest designing to use the National Government in the creation of a vast fuel trust could seek no more direct and more perfect aid than the so-called tax-free denatured alcohol act of the last session of Congress and the regulations framed by the internal revenue office in accordance with that act. If anyone doubts that the trust is to blossom forth when the act goes into effect next January 1, he might find conviction in the announcement from Washington that there is a prospect of sharp competition between two fuel trusts growing out of the act. Bogus competition is a favorite means of concealing the processes of trust formation. If Congress, assuming to destroy combinations of various kinds, wishes to go to the root of things, it will make no mistake in repealing at once the act of Congress approved June 7, 1906, entitled, a bill for the removal from bond, tax-free, of domestic alcohol, when rendered unfit for beverage or liquid medicinal uses, by mixture with suitable denaturing materials," the so-called free-alcohol bill. The debate on the bill, which originated in the House of Representatives, and the significant changes made in it before its passage by the Senate at a time in the session when the public mind was fully occupied with other matters, were enough to arouse apprehension, and the MANUFACTURERS' RECORD, the first paper in the country, it is believed, to note the significance of the changes, made the point as early as August 2:

"There seems to be a possibility that not merely may the number of establishments for the manufacture of alcohol not be largely increased, as was the expectation of persons who favored the measure as an opportunity for the utilization of a great bulk of vegetable products in the manufacture of alcohol, but even that the number of such establishments may be reduced or may easily be controlled in a way that might prevent the fall in the price of alcohol expected from the removal of the tax."

We thought that we detected in the act, as passed, the certainty of results directly contrary to the expectations of an abundance of cheap fuel for industry and a greatly-expanded market for agricultural products on the part of the body of manufacturers and farmers in the country who had been induced to give their moral support to the measure without suspecting that the alleged opposition to it was really on the part of interests most concerned in its final passage.

The General Government has been prolific in publications bearing upon the subject. One of the earliest was a volume of 432 pages reproducing the hearings in February and March last on the bill before the committee on ways and means of the House of Representatives. To that committee Secretary James Wilson of the National Department of Agriculture submitted a statement enthusiastic for alcohol as a fuel and calculated to set practically every farmer in the country in favor of the bill being considered. He said:

"The question of heating and lighting on the farm is becoming quite insistent. In the prairie countries there is some coal, but the readily-obtained supply will become exhausted before a very remote date. Hard coal taken out to the prairies is expensive at all times, and very expensive quite often; besides which, it is becoming more and more expensive as time goes on, so that we must begin looking about for other sources of heating and lighting. The starch and sugar plants are the present source of alcohol, and will continue to be. In Europe the chief sources of alcohol have been the potato and the sugar beet by distillation, either directly or from their by-products. Other sources of alcohol which may be advantageously utilized in the United States are the white potato of the North, the sweet potato, the yam, the cassava plant, waste molasses from the sugar-cane, waste molasses from the sugar beet, and the waste product from the stalk of the Indian corn at the time of the hardening of the grain."

Secretary Wilson went with some detail into the potential productivity in alcohol of corn and potatoes; he dwelt upon some difficulties, but in conclusion, said:

"The time is doubtless coming when technical and commercial skill will be able to utilize this immense source of energy. Our coal mines are definite quantities, and are being rapidly used up. Our forests are disappearing, and many of them have disappeared. The same is true of the sources of mineral oil and natural gas. In the future—it may be some time in the future—the time will certainly come when the world will have to look to agriculture for the production of its fuel, its light and its motive power. It seems to me that through the medium of alcohol agriculture can furnish in the most convenient form for the use of man this absolutely necessary source of supply. I believe, therefore, that the utilization of alcohol in the arts and industries, under such restrictions as would safeguard the fiscal rights of the United States Government, would prove not only a great stimulus to manufactures, but a great benefit to agriculture."

The special interest of the farmers in the proposed legislation was reflected all through the hearings, and was emphasized in the report of the committee favorable to the bill. That report intimated that the new law would temporarily injure the wood-alcohol industry, but it took the broad ground that the greatest good to the greatest number was to be considered, and pointed out how, with the expected fall in price of alcohol, its use for light, fuel and heat, especially on the farms and in the villages of the country, would become enormous. Estimates were presented by the committee of the cheapness of alcohol as compared with kerosene or gasoline, especially in parts of the country where corn is grown abundantly, and in conclusion, the report said:

"Alcohol would be able to supplant gasoline and kerosene in the production of power and light, and great good would result, especially to the farmers of the United States. It seemed reasonable that this result would follow, and, with the resulting good to the great mass of our people, would far outweigh the temporary loss which would come to the wood-alcohol industry. This belief is shared by the great mass of our fellow-citizens from all parts of the United States, and the demand for tax-free denatured alcohol is well-nigh universal."

It is not surprising that the farmers of the country, a most influential element in the voting population, in a year of congressional elections were given the impression that cheap fuel for heat, light and power was to be furnished for farm operations, diminishing their labor difficulties and providing a market for certain great crops of the wastes from semi-agricultural manufacturing industries. It is not surprising that Louisiana sugar planters and Western beet-sugar growers had visions of the economic utilization of low-grade molasses, and that cottonseed-oil-mill interests, representing an investment of at least $100,000,000, believed that at slight extra expense their plants might be used in the production of alcohol after the seed-crushing season. These optimists had evidently been impressed by the literature circulated for the purpose of popularizing the measure and had in mind experiences in other countries, and especially the simplicity of Government administration of the 70,000 farm distilleries of Germany. They were not informed, until after the act, of the adroit changes made in the bill in the Senate coincidently with a cessation of reported opposition to it. But publication of the text of the act clearly indicated that the farmers of the country were, after all, the individuals least considered; that the greatest good to the greatest number had been lost in the shuffle, and that no existing industry manufacturing or dealing in fuel for light, power and heat was to be injured at all, to use a very mild expression. This indication was confirmed by subsequent developments, particularly in publications of the General Government.

It was unique, to say the least, for Commissioner of Internal Revenue Yerkes to suggest, in connection with his issuance of regulations controlling the making of denatured alcohol, that "while the price of the completely denatured product cannot now be definitely stated, it is believed it will not be more than 35 cents a gallon." The most vital feature of the regulations, which are concerned principally with the denaturing of alcohol and the handling of it for use in manufacturing, is, perhaps, the provision that "unless otherwise specially provided, the agents used for denaturing alcohol withdrawn from bond for denaturing purposes shall consist of methyl alcohol and benzine in the following proportions, etc." The act as amended in the Senate had clearly shown the impossibility of creating farm distilleries under the act. The regulations of the internal revenue bureau reinforced the importance which wood alcohol as one of the denaturents was to have, to say nothing of benzine, and they explained the depression of Louisiana sugar-growers at the thought that the price of the wood-alcohol denaturent would prohibit them from engaging in the manufacture of alcohol from molasses, as they had hoped to do, and, in spite of the assurance of Commissioner of Internal Revenue Yerkes that, "even though the production of wood alcohol should be controlled by a trust, the manufacturer of denatured alcohol will not necessarily be controlled by the same organization, as wood alcohol is not the only denaturent, and it will be easy to find substitutes," accounted for the activities following the passage of the act and the lively interest in it, revolving around wood alcohol, of influences controlling or allied with the combination known as the Distillers' Securities Co. The wet blanket for individuals who had hoped for the greatest good to the greatest number in the tax-free denatured alcohol movement became wetter upon the appearance, nearly five months after the passage of the act, of bulletins of the National Agricultural Department, the cautious discussion in which of the sources and of the uses of industrial alcohol were summarized as follows:

"The benefits which are to accrue from the use of industrial alcohol free of tax have probably been overestimated by the people at large, and especially by the farmers, but that material benefits will accrue is not a subject of doubt. These benefits will come, not suddenly, but slowly, as agricultural products are more abundant, technical methods of manufacture improved, and the methods of utilizing the industrial alcohol better understood. Our people should not, however, be disappointed should many years elapse before the magnitude of the product used for industrial purposes reaches the figure already attained by Germany and some of the other European nations. Of the raw materials which can be utilized for the manufacture of alcohol, Indian corn is by far the most abundant and the most promising source at the present time. The average price of potatoes must be very much decreased before raw material of this kind can come into competition with Indian corn as a source of alcohol. Promising sources which are not now utilized for the manufacture of alcohol in this country are the potato, the sweet potato, the yam, sorghum, molasses from the cane-sugar and beet-sugar factories, and the Indian corn stalk. Waste materials of other manufacturing industries, such as those related to fruits and vegetables, may incidentally be utilized for manufacturing purposes, but could not of themselves become independent sources of profitable industrial alcohol.

"The problems connected with the use of alcohol for driving machinery are somewhat technical, and it is only desired to call attention to the possible advantages to the farmer from this source of power, and also to point out the difficulties which must be overcome. In this connection it seems that a word of caution is needed, as in the exploitation of tax-free alcohol extravagant opinions regarding its possibilities have been expressed. These exaggerated statements have been made without any intent to deceive or mislead, but on account of insufficient information. The natural tendency in all such matters is to select those points which are certain to be of great benefit and publish them broadcast, and to neglect the difficulties and dangers which lie in the path of progress along these lines. Our farmers, who are naturally conservative, need very little caution in such matters, but it is important that a full understanding of the difficulties of these problems should be disseminated among the agricultural population. It is quite certain that if alcohol can be produced in the near future at a cost not exceeding 25 or 30 cents per gallon of 95 per cent. strength, it will be a most valuable source of power on the farm. Although with the present relative prices of alcohol and gasoline there is no financial advantage in the use of the former, it is highly probable that the price of gasoline will advance and that of alcohol fall."

These facts have been set for by the MANUFACTURERS' RECORD under the conviction that a movement that was designed to benefit immensely hundreds of thousands of manufacturers and farmers and incidentally the whole country has, through legislative sleight-of-hand, of which the great majority in Congress were probably ignorant, been converted into possibility of a fuel trust of more than national scope. We believe that attempts to prevent such a catastrophe for the country, through modifications of the internal revenue office regulations, will be futile. We believe that the act should be radically amended, if possible before it shall take effect, or that an entirely new act be substituted. We are confident that Congress in the present short session could do no more patriotic service.

To Make Soapstone Products.

The Piedmont Soapstone Co. will establish a $100,000 plant at Tye river, Va. This amount covers the cost of buildings and machinery for the manufacture of all kinds of products from soapstone, and operations will probably begin by January 1. Mr. H. S. Kimball is general manager of the company. The latter was incorporated several weeks ago in Maine with a capital stock of $1,000,000, and Messrs. Coolidge & Hight, 50 Congress street, Boston, Mass., are interested in the enterprise.

ACTIVITY AT JOPLIN.

Building, Banking and Mining Operations Prosperous.

[Special Cor. Manufacturers' Record.]
Joplin, Mo., December 8.

Industrially and commercially, Joplin and the entire southwest portion of Missouri are nearing the close of the most successful year in their history. Abundant crops of all kinds have been raised and high prices generally prevail. Wages have been uniformly high, enabling the laborer not only to procure the necessities of life, but to indulge in many of its luxuries, swelling the volume of retail trade to an extent hitherto unknown. Wholesale trade has increased from 20 to 30 per cent. over last year, its prosperous condition being attested by the construction of new buildings and a material increase in sales facilities. It is safe to assume that for the past 11 months wholesale and retail trade has increased from 25 to 30 per cent. over that for the full 12 months of last year.

Building of all kinds is being vigorously pushed, notwithstanding the winter weather, no less than 500 dwelling-houses being now in course of construction, while a number of factories and heavy manufacturing plants are soon to be under way. The new half-million-dollar hotel, now under construction, has the steel structural work completed to the eighth story, and it is confidently believed that by July of next year the traveling public will be provided with the most complete and modern hostelry in the State outside of Kansas City and St. Louis.

The street and interurban railways have been doing a tremendous volume of business and increased their trackage almost one-third. The Heim line, connecting Joplin with Pittsburg, Kan., is now being built, and other roads connecting Joplin with other Kansas towns and with Springfield and Neosho are being contemplated.

As a result of the commercial and industrial activity of this section transportation facilities have been taxed to their utmost, and the car shortage of the past several weeks has been strongly felt. All roads entering this territory have had all they could do in both the passenger and freight departments, and none report a gain of less than 25 per cent. so far this year. Express companies report a similar gain, with the holiday season yet to swell the totals for the year.

As reflecting the general prosperity which prevails A. H. Waite, cashier of the Joplin National Bank, gave out the statement that, in common with the other banks of the city, that institution had received a greater total of deposits and the clearings were larger than during any preceding year, the average daily business amounting to more than $1,000,000. It is his opinion, also, that next year will show as large a gain over this as this shows over previous years.

There is no let-up in the mining activities of the Joplin section. Instead of being content with what has been done, it seems as if every operator had taken a solemn vow to increase and increase and so on ad infinitum. Ore prices have been exceptional, and the largest output in the history of the district was reported for the week ending November 17, aggregating 14,156,890 pounds of zinc and 1,592,180 pounds of lead, with a total valuation of $393,699. The figures of zinc and lead production as shown for the first 10 months of 1906 equal the entire production and more of many previous years. The total production during this period was 495,105,900 pounds of zinc and 69,386,100 pounds of lead, while the value reveals the astounding total of $13,387,784, made up of $10,709,268 for zinc and $2,678,516 for lead. The total value of lead and zinc production for the entire year of 1905 was $13,302,800. And in the business movement there is a great vigor and aggressiveness.

A new gas company that will have its plant in Joplin is in process of organization with a capitalization variously estimated from $25,000 to $50,000, and the foundations of the building have been laid. The Bartlett Steel Co. has recently added a new building to its plant for its engineering department, and eventually a splendid group of buildings will be erected that will be thoroughly up to date both in design and equipment. The use of electricity will play an important part in the fitting up of this plant, all of the machinery being run by independent motors.

Population down here grows so that it cannot accurately be tabulated. There is a charm about digging wealth out of old mother earth that acts as a magnet on a good many humans, with the result that men brought here by the inquisitiveness of investigation come again and again until finally they become actual residents and pursue the business of mining as such rather than as a speculative side line.

There are 48 churches in Joplin with 7000 members, and the value of their buildings is estimated at $450,000, and new buildings in course of construction will add $151,000. Joplin contains 17 school buildings, valued at $350,000 and employing 117 teachers and caring for 9000 scholars.

Over in Webb City the Webb City Iron Works is making rapid progress with its new buildings now that the initial delay attendant upon lack of materials has been overcome, and in a recent announcement the company stated that shortly after January 1, 1907, it expected to occupy them.

BLOWN OUT FOR REPAIRS.

Furnace Operations in the Birmingham District and the Output.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., December 10.

Much iron is accumulating on furnace yards in the Birmingham district because of the inability of the railroads to handle the tonnage as quickly as it is offered. The car shortage is the absorbing topic in this section, and there is no relief in sight. Not alone is this car shortage affecting deliveries of pig-iron, but is hampering delivery of raw material supplies, and the statement is made on good authority that there is likely to be a curtailment of production for this reason. During the past two weeks four furnaces were blown out for repairs in this territory—the recently-purchased furnace at Rising Fawn, Ga., belonging to the Southern Steel Co.; one of the furnaces of the Sheffield Company and two of the Tennessee Coal, Iron & Railroad Co.'s furnaces in the immediate Birmingham district. This loss will be felt when statisticians get to work on figures for the annual production in Alabama and Georgia. There is no probability of these furnaces resuming operation, either, until next month, if by then. As an example of the unsteadiness of the raw material supplies for furnaces, one corporation shows in one day 1600 tons of coal short at coke ovens and the following day 300 or 400 tons of coke short. The bins at the furnaces are far from being as full as they might be.

As regards sales of pig-iron there is some business still being done in this section, but for delivery after April 1. Before that date the iron wanted is considered spot article and calls for a good premium if it is to be had. The weather conditions have been as desirable as they possibly could be, but the transportation facilities were simply terrible. At present rate the aggregate sales will shortly be announced equal to the probable make for the second quarter of the coming year. Spot iron brings from $21 to $23 per ton No. 2 foundry. After the first quarter some iron can be had at from $17.50 to $19 per ton No. 2 foundry or soft. A few tons of silvery gray or high-silicon iron is still selling in this section at $26 per ton. Iron for delivery after the second quarter of the coming year commands $17.50 per ton. Furnaces out for repairs, and there are several of them, including the four mentioned above, will be pushed to completion at the earliest possible moment. Positively no apprehension is expressed in this section that there is likely to be any overproduction of iron next year.

"All our time is now being given toward securing cars with which to make shipments long overdue," said a prominent iron man seen a day or two since. At the time he was telephoning to railroad offices asking if promised cars had been started toward the furnaces. "It is simply out of the question to get anything like what we need in the way of cars to move our iron," said the gentleman. "We have written letter after letter to the higher officials of the railroads, and while some of them say they will make an effort to help us out, this effort does not come quick enough. Some of the railroads are redistricting their divisions in this section in the hope that the traffic can be handled more expeditiously, and thereby give some relief to the manufacturers. That may have some effect, but it is a matter of more cars and more locomotive power. High officials have been to this territory and have looked over the situation, and are scratching their heads to evolve some ideas as to how the situation can be relieved quick. The consumers are clamoring for their iron, and we are anxious to deliver same in order that we might include the sales in the current reports. Of course, with iron on yards, though sold, we cannot make a statement of it to our directors. The situation is something fearful. Some of the consumers have authorized a bribe for switching of cars, but we will not participate in such doings. Just think of $10 to be allowed for switching cars, so urgent is the need for the iron."

The Birmingham district is interested in two meetings slated to be held this week. The directors of the Alabama Consolidated Coal & Iron Co. are to hold a meeting in New York city for the purpose of electing a successor to Col. T. G. Bush, president, as announced some weeks ago. The directors of the Sloss-Sheffield Steel & Iron Co. will meet in New York city, declare the usual dividend and elect a successor to Vice-President M. M. Richey, who resigned in order to return to the Southern Railway as one of the district general superintendents. It is believed that J. W. McQueen will be advanced to the position of first vice-president, and will be retained as general sales agent also. Mr. McQueen is well equipped for the position.

John A. Topping, president of the Republic Iron & Steel Co. and chairman of the executive committee of the Tennessee Coal, Iron & Railroad Co., will spend a few days in the Birmingham district before the end of the year making the final inspection for 1906. Officials of the Tennessee Company in this district in charge of the operations have determined to give every effort toward as large a production at the Ensley furnaces and steel plant as ever before accomplished. It will take hard work to hold up the production under the conditions, but the officials feel confident that the effort will be worth the while. The steel demand is strong, orders accepted several weeks ago being delivered on slowly. Though a report reaches here that the steel-rail pool has been abandoned, the rail mill in this district will not feel any difference, the greater portion, if not all, of the probably make for the coming year having been sold already.

BUILDING AT AUGUSTA.

The Situation Influenced by the Servant Problem.

[Special Cor. Manufacturers' Record.]
Augusta, Ga., December 10.

Work on the construction of the Augusta plant of the Armour Fertilizer Co. has been started in earnest. A large force of hands are at work for the company, and it is stated that the factory will be in operation in plenty of time to supply the local fertilizer trade of the Armour Company by next spring. As previously announced in the MANUFACTURERS' RECORD, the plant will cost $100,000 and will have an annual output valued at $500,000, while the weekly pay-roll will amount to $5000. The enterprise is one of much value to Augusta, and will add materially to its list of enterprises. Operations will commence by the first of next February at latest.

The building of an up-to-date apartment-house for Augusta is announced for the near future. According to the statements obtained, work of building will commence about the middle of January, and it will be on the corner of Washington and Greene streets and will be modern in every particular. It will be modeled on the double-apartment style, and will cost $50,000. The need of a good apartment-house is recognized as one of the most urgent necessities of the city, and business men are of the opinion that it will be one of the best-paying investments that could be made.

The servant problem has reached such proportions till it is almost impossible for some of the families to keep house, and many of them express themselves as desiring to take advantage of the services of an up-to-date apartment-house rather than worry with the servant question. The establishment of the apartment-house here will be regarded as one of the best moves along these lines that has been made in Augusta in a score of years.

The opening of the tourist season has begun, and travel to the South is getting quite regular. The Bon Air Hotel and the Hampton Terrace are preparing to open for the season. The Bon Air will open the middle of the month and the Hampton Terrace will follow soon after. According to the announcements of the managers, the season this winter will be one of the most successful in the history of the two establishments. At the Bon Air extensive additions have been made, involving the expenditure of thousands of dollars, and the dining hall is one of the finest in the South. At the Hampton Terrace great improvements have been made, including improvements in the grounds and the construction of a new clubhouse.

J. C. MCAULIFFE.

Another Warehouse and Pier.

Since last March construction work has been advancing at Galveston, Texas, on the additions to the docking and warehousing facilities of the Galveston Wharf Co. Pier 37 has been completed, preliminary pumping and filling has been completed and considerable work has been done on pier 38, and it is stated that the company has decided to build a big warehouse in connection with the foregoing facilities. The various improvements of the Galveston Wharf Co. are reported as costing approximately $1,000,000, and before the end of 1907 it is expected there will be five new piers in use, all equipped with the most modern mechanical appliances for rapid loading and unloading cargoes. Piers 37 and 38 have floor space of about 280,000 square feet each, and are about 1200 feet long.

THE MOST PROSPEROUS PERIOD IN OUR HISTORY*

A Review of the Recent Marvelous Growth of Our Business and Resources—A Forecast of the Future.

By Richard H. Edmonds.

Until we learn to think in billions we cannot measure the meaning of the material development of the United States during the last quarter of a century; much less can we mentally grasp the potentialities which the coming years have in store for us. Our progress, however, has only been the pioneering work of clearing the wilderness, of ploughing and planting amid the stumps which mark the new land of the settler. Not yet have we had time to pull the stumps and drain the swamps. What we have been doing is like sowing by hand and gathering our harvest with the old sickle as compared with what we are now preparing to do. In our pioneering work we have had to disregard permanency to meet the immediate needs of the hour. We have had to make haste even though it meant some waste. However, like the pioneer who built his rude log hut and tilled the stump-ridden soil until increasing gains made possible the building of a better home and the clearing of his land in order to utilize labor-saving implements, we had to pursue similar methods in our national development until now, when we have entered upon a period where scientific farming will take the place of old soil-destroying farming and where scientific skill in manufacturing will mean changes as radical as those which mark the difference in farming methods.

All that we have done in this work of material upbuilding has been the perfectly logical working out of conditions which have surrounded us, conditions which in no wise need give us any concern nor for a moment be considered as pessimistic in their tendency. For instance, in the development of our iron industry, Pennsylvania made pig iron first from the most cheaply mined ores, and then gradually advanced from pig iron to steel and to the fine products of steel. Alabama has sometimes been criticised for selling its pig iron to Northern and Western shops and buying it back in the shape of machinery and locomotives. That, however, is only the natural course in the evolution of business. Under the old conditions it was just as much the natural order of events for the Western farmer to work his prairie soil and the Southern planter his cotton land in a way to get the largest immediate results. Nothing else than what we have done in this way could have been expected by anyone who looked at these things from any other than a superficial point of view. Now a point has been reached where it can be seen that all that has gone before is but the preparation for the real work of national growth—growth in agriculture, in manufacturing, in mining, and in all the other varied business interests of the country.

In studying the material advancement of the United States one is amazed at the marvelous progress of the last quarter of a century. Even 10 years ago the heart of man could never have conceived the magnitude of the development of today. But looking at this in the light of the world-wide revolution in business now in progress, considering our unique geographical position midway between Europe and Asia and the vastness of our resources beyond the power of man to describe, and bearing in mind the forces which today are making for the intensest human activities ever known, it will be realized that the achievements of the past, compared with what the future has in store for us, are but as the gentle shower of an April day in comparison with the mighty downpour of the summer rain.

THE FARMER COMING INTO HIS OWN.

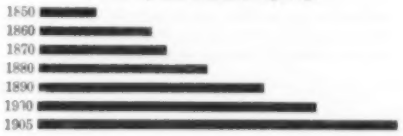
When the construction of railroads, built largely through the aid of land grants, opened to settlement the extensive prairies of the West, agriculture was pushed more rapidly than the industrial advance of the country justified. With the rush of thousands of foreign immigrants to that section and the movement from the East, there was brought about an increase in agricultural products, especially in wheat and corn and live stock, in advance of the growth of other industries. Even without immigration cotton production was for a time in advance of the world's requirements. The inevitable result was a serious decline in the price of farm products. Not until industrial growth had made great advance, increasing the proportion of consumers to the number of farm producers, was there any decided improvement in the financial condition of farmers as a class. Within the last 10 years a change as wonderful as that which has marked the progress of manufactures has come about. In its far-reaching effect upon the continued prosperity of the country it deserves more attention than it has received. The value of all farm property and the number of people engaged in agriculture at different periods, beginning with 1870 and running to 1905, is as follows:

Value of All Farm Property in the United States.

	Value.	Number of people engaged in agriculture.
1870	$8,900,000,000	5,992,000
1880	12,180,000,000	7,713,000
1890	16,082,000,000	8,565,000
1900	20,439,000,000	10,438,000
1905	26,570,000,000	*11,500,000

*Estimated.

Value of All Farm Property.



The value of farm products in the census years beginning with 1870 up to 1900, and in 1905 and 1906, was as follows:

Value of Farm Products.

1870	$1,958,000,000
1880	2,212,000,000
1890	2,466,000,000
1900	4,717,000,000
1905	6,415,000,000
1906	*7,000,000,000

*Estimated.

The striking fact in this latter table is the small increase in the value of farm products between 1870 and 1890, and the enormous increase since 1890. In the former period there was a gain of but little over $500,000,000 in the annual value of farm output, while between 1890 and 1900 the gain was over four and a half times as great, or $2,250,000,000. The value of the farm products of 1900 was largely more than double that of 1880, though the increase during that period in the number of people engaged in agriculture was only 35 per cent. Remarkable as was this gain, it is since 1900, however, that the improvement in agricultural conditions has been almost startling in its extent. Between that year with a total value of $4,717,000,000 and 1905 there was a gain of $1,700,000,000. So great was this progress that in five years the increase alone was almost equal to the

Value of Farm Products.

total output of the farms of the country in 1870 and nearly 70 per cent. of the total even as late as 1890. In view of the abundant harvests of 1906, the production of grain being the largest on record and the price of cotton with a fair yield assured guaranteeing another year of prosperity for the growers, it is reasonably safe to estimate the value of the farm products of this year at about $7,000,000,000, or, say, $500,000,000 more than for the preceding year.

VAST INCREMENT OF FARM WEALTH.

The effect of this change in the farming life of America is illustrated in the average value of agricultural products per capita of our entire population and per capita of all engaged in agriculture:

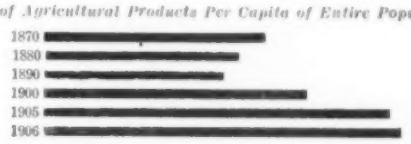
Value of Agricultural Products.

	Per capita of entire population.	Per capita of all engaged in agriculture.
1870	$50	$326
1880	44	286
1890	39	287
1900	61	451
1905	77	*558
1906	*82	†600

*Estimated. †Probably nearly $600.

Starting in 1870 with a production per capita of the entire population of $50, there was a rapid decrease to $39 as the average for 1890, and from that a steady advance to $61 in 1900, to $77 in 1905, and to about $82 in 1906. The more interesting part of this story, however, is the per capita production of all engaged in agriculture. Beginning in 1870 with $326 as

Value of Agricultural Products Per Capita of Entire Population.



the average value per capita, there was a decline to $286 per capita in 1880, with $287 in 1890. From that point the gain was very marked, rising to $451 in 1900, to $558 in 1905, and probably to nearly $600 in 1906, or more than twice as much as the per capita of 1890. The effect of this is shown in the increase in every part of the United States in the value of farm lands.

The per capita value of farm property to the number of people engaged in agriculture has been as follows:

Value of Farm Property to Number of People Engaged in Agriculture.

1870	$1485
1880	1579
1890	1878
1900	1958
1905	*2310

*Estimated.

*Written by the editor of the Manufacturers' Record for the December issue of the *Review of Reviews* and reprinted by courtesy of that publication in this form.

Thus, for every man, woman and child engaged in farm work, the average value of farm property, which was $1579 in 1880, has now increased to about $2300. In the South alone it is estimated that farm values have gained within the last two or three years at least $1,500,000,000. The magnitude of the actual increase of $6,100,000,000 in the value of

Number of People Engaged in Agriculture.

farm property between 1900 and 1905 is made clear by saying that it is more than seven times as much as the total national bank capital of the United States, and is equal to one-half of the aggregate deposits in all the national, State, private and savings banks and all the loan and trust companies in the whole country. Surely the American farmer is coming into his own, and in doing so is enriching the country.

THE NEW ERA OF SCIENTIFIC FARMING.

Contrast this striking exhibit of the prosperity which has come to the farmers of the country with the poverty of 10 or 15 years ago, and in doing so bear in mind that this is only the beginning of what we may expect in farm life. In passing through the pioneering period of skimming the cream of our most fertile soil we carried our farm production beyond what could be profitably consumed by this country or for which a profitable market could be found in Europe. Now, enormous industrial growth with its millions of consumers, added to European requirements, has reversed the conditions. We have reached a time of improved methods in farming and of restoration of fertility to the soil. Much is heard about the increase in the fertilizer trade of the country—and the development of this industry has been commensurate with that of other large business interests, but the real improvement of farming is found more largely in better methods of handling the soil than in the wider use of commercial manures. Scientists are teaching farmers here and there, and from them others are learning, how to rejuvenate and rebuild their land by the use of alfalfa, cowpeas, vetch, and other crops. They are learning how to diversify their products. Increasing wealth and the gain in population are creating an almost unlimited market for the diversified crops. The orchard, the truck-garden, the dairy, are all yielding their fair share of wealth and helping materially to swell these great totals of agricultural output and increase in farm values.

WHAT IRRIGATION IS DOING FOR THE COUNTRY.

Moreover, as a people we are learning the value of irrigation. In the arid regions of the West, aided by the national government, millions are being expended in the reclamation of millions of acres of land destined to furnish homes for millions of prosperous farmers. In the semi-arid regions the same good work is going on, as well as in sections where rainfall is abundant but irregular. In Louisiana and Texas over 600,000 acres are now annually given to rice culture with irrigation. Under irrigation this land has risen in value from 25 cents and 50 cents an acre 15 or 20 years ago to $50 and $75 and $100 an acre. The underground streams of Texas and other States have been tapped, and the one essential element, water, has been found in abundance to make fruitful with an abundant harvest wide stretches of land which but a few years ago was supposed to be almost valueless. As we have learned to flood the dry land to the enrichment of the whole country, so we are beginning to learn how to drain the overflowed lands where nature has given a soil of almost unequaled fertility, but which has heretofore been unavailable. Many million acres of swamp land will in the future be reclaimed. To the country this will yield even a larger profit than can be produced from the irrigation work now under way throughout the West, valuable as that is.

IMPROVING OUR WATERWAYS.

Connected with this drainage work, and in some sections of the country really a part of it, is the improvement of our rivers and harbors. Beggarly is the only word to describe the treatment by the national government of American rivers and harbors. The total amount expended in this cause from 1820 to 1906 was $470,000,000, the average amount for the last 10 years being less than $20,000,000 annually. Contrast this with what other countries have done. Holland, with 2000 miles of navigable waterways, against over 43,000 miles in the United States, not including any streams of the seaboard, has expended about $1,500,000,000 upon this work, while France, with 4000 miles of navigable waters, or about one-tenth of what we have, has expended over $1,000,000,000, or more than twice as much as the United States. It is said that there has been expended upon the harbor of Liverpool alone, $200,000,000. France has spent upon the harbor of Havre, $35,000,000, and other countries have kept pace, realizing the importance of rivers and harbors not only in the development of business, but in the regulation of freight rates. Even Mexico and South America have in many cases far exceeded us in the broadness with which they have regarded river and harbor improvements. We are only beginning to grasp what it will mean to properly improve our rivers.

THE GROWTH OF AMERICAN RAILROADS.

It is a wonderful story, one that stirs the imagination, as we study the figures which tell of what American railroads have done, and yet in this study we learn that there seems to be no prospect that our railroads for many years to come will be able to keep pace with the expansion of industry and commerce. It was but a few years ago that the announcement that the Pennsylvania Railroad had decided to duplicate its entire system at a cost of hundreds of millions of dollars was regarded by many conservative people as wild and visionary. But the Pennsylvania, like every other railroad in the country, is already crowded to the limit of its capacity. There is a demand for cars and locomotives and new track far beyond what we have today or what it seems possible for us to secure in the near future. Moreover, expansion of traffic grows more rapidly than railroad facilities. Though we may have temporary ups and downs in business, every new burst of activity will far exceed the preceding one, just as the expansion of trade today is far ahead of that of 1900 to 1902, when some thought we were on the very topmost wave of prosperity.

The mileage, the number of cars and locomotives, and the ton mileage of the railroads of the country for 1895, 1900, 1904 and 1905 compare as follows:

	1895.	1900.	1904.	1905.
Mileage	180,955	194,321	212,348	217,350
Cars	1,265,108	1,385,253	1,770,884	1,798,434
Locomotives	36,610	38,065	48,658	49,616
Ton mileage	88,567,770,801	141,162,109,413	173,613,762,130	187,375,621,537
Passenger mileage	12,642,202,551	16,313,284,471	22,167,124,184	23,906,420,668

From 1904 to 1905 there was a gain of nearly 14,000,000,000 mile tons of freight, while for the preceding four years the average annual increase was only 8,000,000,000 mile tons. The figures for 1906 will doubtless show a still greater advance. The growth of our railroads since 1830, when we had but 23 miles in the country, is illustrated in the following table:

	Miles.
1830	23
1840	2,810
1850	9,021
1860	30,626
1870	52,922
1880	93,267
1890	166,703
1900	194,262
1905	217,350
1906	*223,000

*Estimated.

Railroad Mileage.

Even this statistical showing does not do justice to the subject, for the 223,000 miles of road which we now have, against the 23 miles of 1830, includes only main tracks, and does not take into account sidings and double tracking, which in the aggregate figure up about 90,000 miles. What a story of activity and the broadening of human life is shown by these figures of railroad development! During the lifetime of many who are still active factors in business affairs, or 76 years ago, we had 23 miles of railroads; today 223,000 miles, or including double track and sidings, 313,000 miles.

The freight in mile tons has grown from 39,000,000,000 in 1882 and 79,000,000,000 in 1890, to 187,000,000,000 in 1905, the total for the latter year being more than twice as great as for 1890. The gain of 46,000,000,000 tons between 1900 and 1905 was very much larger than the total of 1882, and nearly two-thirds as great as the total of 1890. Owing to the improvement in road beds and to the larger and much more powerful locomotives and cars, freight traffic has increased by a much greater percentage than the increase in the number of cars and locomotives, and likewise than the increase in mileage. On most of our roads we have very nearly reached the limit of heavier locomotives and larger cars, for as these are increased in weight heavier rails and heavier bridges are made necessary. It is really a case of reconstruction, and re-reconstruction and rebuilding year after year. Yet no road in a prosperous section seems to catch up with its business. The depot and the rolling stock and the roadbed built for the present are behind the times before they are completed. Great as has been the growth of traffic during the last 10 years, it must of necessity be far exceeded by that of the next 10, since population is increasing and the volume of trade grows more rapidly than population.

To extend our railroad facilities by the building of new mileage, by im-

provement of tracks and terminal facilities, and by the increase of rolling stock adequate to meet the actual needs of the country during the next 10 years, would require as a minimum an expenditure in that time of from $4,000,000,000 to $5,000,000,000.

TAKING CARE OF FUTURE POPULATIONS.

To a population of about 85,000,000 we shall add during the next 10 years 20,000,000 or over, giving us in 1916 a total of about 105,000,000 and by 1926, or 20 years hence, 130,000,000. In 1931, or 25 years from now, our population will be about 145,000,000. By 1936, or 30 years hence, we will have in the United States, not counting our insular possessions, about 155,000,000 people, or double our total population of 1900. Looking forward 44 years to the middle of this century, and the boys and younger men of today will be active business men of that period, we must count upon a population of 200,000,000. As business grows so much more rapidly than population, as the output of nearly all manufactured and agricultural products increases at an ever-accelerating rate, and as modern machinery and inventions make possible the doubling and quadrupling of man's working capacity, it is not unreasonable to say that the 200,000,000 people of 1950 should exceed in potentiality what 400,000,000 could accomplish today. Have we room for such a population without overcrowding? Can we accommodate these vast numbers and still find ample land for the farmer and natural resources sufficient for the worker in iron and steel and cotton and other industries? The briefest study on this point will turn the most confirmed pessimist into an optimist.

In area the United States covers 3,000,000 square miles, with an average of less than 26 persons to the mile. Settled as densely as France, we could accommodate 570,000,000 people; as densely as Great Britain and Ireland, we would have over 1,000,000,000 people. Or compare our capabilities with the density of population in such States as Ohio, Pennsylvania, or all New England. In Pennsylvania the average number of people to the square mile in 1900 was 140. At this average for the whole country we should have a population of 420,000,000—and certainly Pennsylvania is not overcrowded. Ohio has 102 people to the square mile, and New England an average of 90. On the basis of Ohio's average the United States would have over 300,000,000, and on the New England average 270,000,000 people. So great is the extent of our agricultural land that with the continued improvement in farming methods now going on, with the reclamation of our overflowed lands, and the extension of irrigation in regions formerly regarded as forever doomed to the cactus and sage brush, with the development of scientific forestry, too long negelected, but still capable of saving our timber reserves and protecting the sources of our rivers, we can so build up our farming interests as to provide an ample food supply for as great a multitude as the future seems sure to give us.

With resources for the creation of industries, the development of mining, the extension of railroads, and the enlargement of trade and commerce at home and abroad, we are abundantly blessed. Nature has lavished her riches upon this country as upon no other, as far as human knowledge has yet discovered.

GREAT STORES OF COAL AND IRON.

Of coal, the foundation of the modern industrial system, our supplies are so great that we need give ourselves no concern as to the future. We have 356,000 square miles of coal area in the United States, against 10,000 square miles in Great Britain, 1800 square miles in Germany, and 51,000 square miles in all Europe. West Virginia and Kentucky each have 50 per cent. more coal territory than Great Britain, and by reason of thicker seams many times as much available coal.

A number of other States rank equally as high in coal, while of iron ore, upon which it has been said "civilization itself is staked," we are probably as well supplied as all Europe. The recent report to the Swedish government that the aggregate known ore resources of the world are 10,000,000,000 tons has been accepted in Europe without serious criticism, but the quantity credited to this country is probably 75 per cent. too small. In it we are counted as having but little over 1,000,000,000 tons, whereas a larger amount than that has been proved up in Alabama alone. The Lake Superior region is credited by experts with 2,000,000,000 or more tons. Other sections have large ore resources, and when low grade ores carrying 25 per cent. to 30 per cent. of metallic iron, such as are now largely used in Germany and Great Britain, are considered, we have immense stores for the future. Really the ore question is of world-wide importance, for the world will now consume, approximately, as much iron ore in 10 years as has been used from the beginning of recorded history to the present time, but the situation of the United States, considering its own supplies and its ability to draw from others, is better than that of any other country. We are making nearly half of all the iron produced on earth and are certain for many years to dominate the world's iron and steel trade.

Blessed with these advantages, how have we utilized our opportunities and what of the future? Statistics tell the story of what has been accomplished, and, judging the future by the past, it is possible without undertaking to be scientifically correct in the handling of exact figures to forecast something of what we may reasonably expect, based on what has been done. The production of pig iron has been as follows:

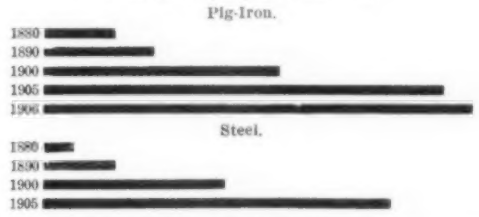
Pig-Iron Production Per Capita.	Pounds.
1880	171
1890	329
1900	399
1905	619
1906	*662

*Estimated.

MAKING HALF THE WORLD'S STOCK OF IRON.

In a little over a quarter of a century we have increased our iron output from 3,835,000 tons to 25,000,000 tons, and the only reason why this year's production will not be largely in excess of the latter figure is the absolute inability of our present furnace capacity to turn it out rapidly enough to meet the demand. Consumption is now running ahead of production, necessitating large importations of iron from Great Britain to meet this shortage. The furnaces which are now under construction should within the next 12 months enable us to take care of our own requirements and continue, as we have been doing, a heavy exportation of steel and finished goods. The growth of this industry is strikingly shown by a comparison with 1860, in which year the United States made only 821,000 tons of pig iron. At the present time the South is making more than four times as much iron as the United States made in 1860, and nearly as much as the entire country made in 1880. The development of the steel industry has of recent years kept pace with the growth in iron. In 1880 we produced 1,247,000 tons of steel, in 1890 4,277,000 tons, in 1900 10,188,000 tons and in 1905 20,023,000 tons.

Production of Pig-Iron and Steel.



Connected closely with the iron industry is that of coal, and in this we have the same wonderful story of development repeated.

Production of Coal Per Capita.	Tons.
1880	1.41
1890	2.52
1900	3.49
1905	4.71
1906	*5.00

*Estimated.

Looking to the future and to what we may reasonably expect, with this accelerating rate of production and consumption per capita, and considering it on the basis of the great increase of population, the future presents figures almost startling in their magnitude. They are not, however, more startling than would have been a prediction 10 years ago that our iron output of 1906 would be 25,000,000 tons or a prediction at that time that in this year we would be mining 425,000,000 tons of coal. Should coal production per capita continue at the same rate of increase for the next 16 years as it has during the last 16, or since 1890, we would in 1922 have an output of about 1,200,000,000 tons a year, or if the rate should continue for 10 years as for the last six we would have about 900,000,000 tons as our output for 1916. Since 1890 the production of iron per capita has about doubled, a close estimate for 1906 making the per capita production this year 662 pounds against 329 pounds in 1890. Continued at the same rate for the next 16 years this would give us a production per capita in 1922 of over 1300 pounds, or with a population at that time of about 118,000,000 an output then of 70,000,000 tons. It is hardly conceivable that such enormous figures will be reached, for with increasing magnitude and with increasing cost by reason of the enhancement throughout the world in the value of iron ores the tendency may be to some decline in the percentage of increase in production. If the rate of growth should continue to increase for 10 years at the same average as since 1900, we would in 1916 have a total output of about 58,000,000 tons, and in 1922 largely over 70,000,000 tons. We may not reach these figures within these periods, but, judging by what we have been doing during the last eight or ten years and allowing for some decline in the percentage of growth, it seems reasonably safe to figure on an output of least 50,000,000 tons 10 years from now. This means the doubling of our entire iron trade, but as we have very nearly doubled it in the last six years it is not unreasonable now to look forward to its being doubled again within 10 years.

Production of Iron, Steel and Coal.

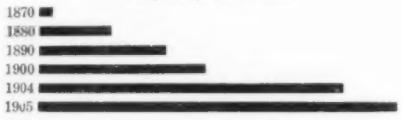
	Pig-iron, tons.	Steel, tons.	Coal, short tons.
1860	821,000	.....	.....
1880	3,835,000	1,247,000	71,000,000
1890	9,207,000	4,277,000	158,000,000
1900	13,789,000	10,188,000	270,000,000
1905	22,992,000	20,023,000	392,000,000
1906	*25,000,000	.....	*425,000,000

*Estimated.

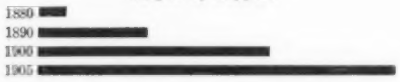
OTHER MINERAL PRODUCTS.

Turning from coal and iron and steel, look for a moment at a few other things which help to create America's prosperity. There is petroleum, almost unknown in 1860, when the output was only 500,000 barrels, and which had increased to about 26,000,000 barrels in 1880. Even as late as 1900 our production was 63,600,000 barrels; in 1905 it was over 134,000,000 barrels, a gain of more than 100 per cent. in five years, and this growth shows no indication of any decline. Sixteen years ago our Portland cement business was, indeed, but an infant industry, with an output of 335,000 barrels. By 1900 this had advanced to 8,482,000 barrels, and by 1905 it had jumped to 35,200,000 barrels and this year will probably be 40,000,000. This is the most remarkable development of any large industry which we have ever had. Cement came at the most opportune time to supplement, not to supplant, iron and steel and lumber. Except for its growth and the aid which it has given to construction work, we would ere this have had famine prices in iron and lumber.

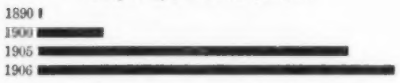
Output of Petroleum.



Output of Copper.



Output of Portland Cement.



But to catalogue our resources as the foundation of almost limitless industrial potentialities would necessitate enumerating copper, in which we lead the world, zinc and lead and gold and silver, material for concrete, granites and building stones without end, splendid water powers which are being utilized in every section for electrical use, great rivers and inland seas—all combining to make such a situation as cannot be duplicated elsewhere.

Of more dramatic interest than is found in the development of any other industry, unless in iron and steel, is the story of copper. In this metal we lead the world. Broadly speaking, the expansion of the electric industry in railroads and in power transmission throughout all nations is dependent upon our ability to supply the world's copper requirements. The struggle of financial giants to control important copper mines, the vast fortunes made in legitimate mining development, as well as by those who were able to foresee the influence upon stocks of new demands for copper, read more like fairy tales than the sober facts connected with the growth of a single industry. The production of petroleum, copper and cement has been as follows:

	Petroleum, barrels.	Copper, tons.	Portland cement, barrels.
1880	26,286,000	27,000	.....
1890	45,823,000	115,000	335,000
1900	63,620,000	270,000	8,482,000
1905	134,000,000	413,000	35,246,000
1906	.....	.....	*40,000,000

*Estimated.

So varied and extensive are the mineral resources of our country that a wonderful expansion in mining may be anticipated. Without any abatement of the activity in the baser minerals such as iron ore and coal, there is a far-reaching development under way in gold and silver and copper mining. The speculative side may run too far and bring about many losses, but this activity will result in the solid growth of the whole mining industry on a much broader scale than heretofore. Its progress has been great, but will now be far greater. The value of our mineral output has been:

Mineral Products.

1880	$369,000,000
1890	620,000,000
1900	1,064,000,000
1905	1,289,000,000
1906	*1,400,000,000

*Estimated.

OUR LEADERSHIP IN COTTON-GROWING.

Equally as important in its influence upon the industrial and financial interests of this country and Europe as coal and iron and steel is cotton, of which we hold a practical monopoly. About 80 per cent. of the world's cotton supply is produced in the South. It is the basis of a manufacturing industry second only to iron and steel in the value of output. Our cotton crop, which supplies the spindles of Great Britain and the Continent, and without which starvation would face millions of people and almost bankrupt England, is an asset of supreme importance—one with which Europe for 75 years has struggled in vain to compete, by trying to raise cotton elsewhere.

Our cotton crop, which now annually exceeds in value the total annual gold and silver production of the world, is the basis of an industry which has a yearly value of $2,000,000,000, of which about one-fourth is the output of American mills. About 60 per cent. of our cotton is still exported in its raw state to feed the spindles and looms of Europe. The consumption in American mills is shown as follows:

Cotton Consumed by Northern and Southern Mills.

	Northern, bales.	Southern, bales.
1890	1,799,258	546,897
1900	2,068,300	1,597,112
1906	2,349,478	2,374,225

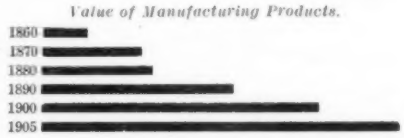
THE ADVANCE OF OUR MANUFACTURES.

The rapidity of our industrial growth is shown in a comparison beginning with 1860, as follows:

	Establishments.	Employes.	Capital.	Products.
1860	140,000	1,311,000	$1,050,000,000	$1,885,000,000
1870	252,000	2,053,000	2,118,000,000	4,232,000,000
1880	254,000	2,732,000	2,790,000,000	5,369,000,000
1890	355,000	4,712,000	6,525,000,000	9,372,000,000
1900	512,000	5,705,000	9,813,000,000	13,000,000,000
1906	.....	.....	*14,000,000,000	*17,000,000,000

*Estimated.

Value of Manufacturing Products.



Since 1900 the increase in capital invested and in the value of products has been largely in excess of the total gain between 1890 and 1900.

With $17,000,000,000 as the value for 1906 of our manufactured products, $7,000,000,000 as the value of our agricultural output, and $1,400,000,000 as the total for minerals, we have $25,400,000,000 as the aggregate of these three, which totaled $15,000,000,000 in 1900 and $12,400,000,000 in 1890.

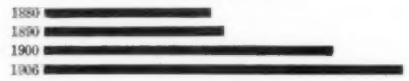
A RISING FOREIGN COMMERCE.

Though our merchant marine is the one dead limb of our tree of business life, our foreign commerce, handled mainly in foreign vessels, has kept fair pace with our industries at home. Our exports and imports have been:

	Foreign imports.	Foreign exports.
1880	$668,000,000	$836,000,000
1890	789,000,000	858,000,000
1900	850,000,000	1,394,000,000
1906	1,226,000,000	1,744,000,000

Foreign Imports.

Foreign Exports.



The most noticeable feature of our foreign commerce of late years has been the increase in the exports of manufactured goods. Busy as we are at home, we are gradually extending our trade and gaining an experience and a foothold in foreign markets which bodes ill for our competitors should the day ever come when slack trade at home compels us to seriously struggle for world markets. The relative value of the exports of agricultural and of manufactured products has been:

Value of Exports of Agriculture and Manufactures.

	Agriculture.	Manufactures.
1880	$686,000,000	$103,000,000
1890	630,000,000	151,000,000
1900	836,000,000	434,000,000
1906	969,000,000	603,000,000

THE PEOPLE'S FINANCIAL STRENGTH.

Lest the reader grow weary with a study of these figures, though only through statistics can the facts which illuminate the past and the future of the material interests of this country be portrayed, this statistical review will close with one more table and that exhibiting something of the financial advancement of the country, as follows:

	1880.	1890.	1900.	1905.
National banking capital	$457,553,985	$650,447,235	$630,299,030	$808,328,658
Assets of national banks	2,105,800,000	3,141,500,000	5,048,100,000	7,563,155,823
Savings bank deposits	819,106,973	1,550,000,000	2,389,547,885	*3,093,236,119
Bank clearings for country	.....	58,845,000,000	84,582,000,000	142,501,000,000
Total deposits in all banks—national, State, private and savings banks and loan and trust companies	2,134,000,000	4,061,000,000	7,238,000,000	11,350,000,000
Number of depositors in savings banks	2,335,000	4,258,000	6,107,000	7,696,000

*1904.

While the farmers of the country have been rejoicing in their increasing prosperity, with the value of farm property rising over $6,500,000,000 since 1900, the city dwellers, who are in the main the chief depositors in savings banks, have likewise been sharing in our material growth. The number of depositors in the savings banks of the country advanced from 2,335,000 in 1880, with total deposits in savings banks of $819,106,973, to 7,696,000 depositors in 1905, with total deposits of $3,093,236,119. The

assets of the national banks of the country, the deposits in all banks, and the bank clearings of the country all tell the same story.

AN ERA OF WORLD-WIDE EXPANSION.

In studying the progress of the country in agriculture, in railroads and in manufactures, and attempting to forecast something of what is ahead of us in the continued expansion of these industries, it must be borne in mind that not alone the United States, but the world, is hungry for iron and steel and copper and cotton, and all the other great products which enter into modern civilization. We have entered a period of world-wide expansion in industry, in commerce, in the construction of railroads, steam and electric, and in municipal improvements such as the most enthusiastic optimist could scarcely have conceived of five or 10 years ago.

We justly boast of the progress already made by the United States, but in considering the future and in attempting to measure its almost limitless potentialities as compared with the past we must remember that much of Europe is almost as busy as America, that Mexico and South America and Canada are running rivalry with us in the expansion of industry, that the Orient, with more than half the world's population, is opening up to Western civilization and to the uses of iron and steel in the arts of peace as well as of war. Africa and the isles of the sea are alike sharing in this advance movement, and if one should give free rein to his imagination, it would paint a picture of increasing activity during the next 10 years in which far greater material progress would be indicated than we have had during the last 10. The world is no longer producing more than it can consume.

As there is a scarcity in the material things which enter into man's consumptive requirements, so there is an increasing scarcity in the supply of men to do the world's work. The laborer no longer tramps the streets searching for employment at starvation wages, as a million or more did 10 years ago. The employer is everywhere looking for the laborer with far more business offering to him than he can find the laborers to handle. From the smallest farm all the way through every field of human employment in industrial affairs to the construction of the Panama Canal, the greatest undertaking of modern times, the scarcity of laborers is the universal cry. Increasing wages, on a scale never seen before, marks the closing months of 1906.

With prosperity on the farm, with prosperity in the factory and in railroad operations, with prosperity for the mechanic and the day laborer, there is being developed out of the changed conditions in the world's business affair a more well-rounded prosperity than any of which history gives us a record. The progress of the last quarter of a century is merely the beginning of our real broad national advancement, and what we have wrought in that period will be doubled, and in many things quadrupled, during the next 25 years. A conception of the possibilities which are ahead of us should quicken the lifeblood and stir the pulse of every man whose horizon is broadened as he looks out upon the world's mighty activities.

$50,000,000 Annually for Rivers and Harbors.

[Special Correspondence Manufacturers' Record.]

Washington, D. C., December 8.

"It is a very real pleasure to greet so distinguished a body of men, who have come to this great city, the capital of the nation, in connection with a measure of the utmost consequence to the nation as a whole. I have come to feel a growing sense of the importance of establishing a far-reaching coherent plan for the general improvement of the waterways of the country. I was first led to consideration of that plan by considering another plan for the use of water not in connection with waterways, but in connection with preparing the land at the head of the river to produce the harvests that later, in part, should be carried on the rivers lower down—that is, in connection with the irrigation policy, in which I so strongly believe as vital to the welfare of the Rocky mountain and adjacent States.

"Just as I feel that the National Government should concern itself with utilization of the water of rivers in their sources where the country is dry, so I feel the National Government should concern itself with the proper control and utilization of the waters lower down in the river where they are fitted to be the great arteries of communication. I have had it brought strikingly to my attention but recently how much we suffer at present because of the inadequate transportation facilities of the railways for moving the great grain crops and cattle crop of this country. We need and must have further facilities for transportation, and, as has been well pointed out, one of the effective methods of affecting railway rates is to provide for a proper system of water transportation.

"It would not be possible for me to enter into any discussion of the details of your plan until I have spoken with some of the leaders of the two houses of Congress. I shall consult with them at once, and trust that something definite and effective can be done along the lines that you mention. You understand, gentlemen, I could not offhand commit myself to the details of any policy without taking into consideration what the feeling of the co-ordinate branch would be, and I must be guided largely by their views. I am sure that you will find there the genuine, patriotic purpose to do what is best for the interest of our common country."

With these encouraging words, coming as a fitting climax to the most enthusiastic and best attended session ever held, President Theodore Roosevelt addressed the delegates of the National Rivers and Harbors Congress, who had gone over to the White House to see him.

This, the third convention of the congress, was held here Thursday and yesterday, and from the increased attendance of prominent men from every section of the United States, convincing and eloquent addresses delivered and results accomplished, bids fair to go down into history as one of the most notable and far-reaching in its results of any convention ever held in the national capital.

More than 1000 delegates faced President Harvey D. Goulder of Cleveland, Ohio, when he opened the congress with an eloquent plea for the development of public sentiment in favor of increased annual appropriations for waterway improvements. He was followed by Speaker Joseph G. Cannon, who in his characteristic manner said that while he was in hearty sympathy with the objects of the Rivers and Harbors Congress, it must not expect too much at the hands of the National Congress, and that it should not attempt too many things at one time, but pick out the most important ones first and when they are finished take up those next in importance. Hon. Theodore E. Burton, chairman of the House committee on rivers and harbors, spoke of the ever-increasing interest being manifested in the improvement of the rivers and harbors of the country and the larger attendance at the convention, and said that members of the convention should not advocate appropriations from Congress for any particular community, but should rather advocate the most important ones first, and that although his committee was a very busy one, he would endeavor to give fair treatment to every project.

The convention was then turned over to Hon. Joseph E. Ransdell, chairman of the executive committee, to whom, more than to any other single individual, is due the credit for the splendid and encouraging results that are being attained and the increased interest that is being shown. In submitting the report of the executive committee Mr. Ransdell said that work of the past year had been satisfactory in every way, and the presence at the convention this year of so many more delegates coming from important commercial bodies indicated the recognition of the country at large of the importance of the undertaking, and he urged upon the delegates to continue unceasing in their energies in giving even greater publicity to the need of improved waterways. During the year both he and John A. Fox of Blytheville, Ark., a member of the executive committee, covered many thousands of miles and made no less than 53 addresses before some of the most important commercial bodies and gatherings throughout the country.

Reports of other officers were made and a committee was appointed on reorganization. This committee, of which Mr. Emil P. Albrecht of Philadelphia, Pa., was chairman, recommended that the executive committee, which heretofore had been the active working branch of the congress, should be abolished and that the officers in the future, together with their duties, should be as follows: A president; one vice-president from each State and Territory represented in the convention to be named by delegates from the respective States or Territories; a secretary and treasurer, which offices may be held by one person, and a board of directors, to consist of the president and secretary of the congress and not less than 20 members selected from the geographical divisions of the United States, such as the Atlantic coast, the Gulf coast, the Mississippi river territory, the Ohio river territory, the Missouri river territory, the Tennessee and Cumberland rivers territory, the Great Lakes and the Pacific coast, the president of the congress to be chairman of the board of directors. The board of directors shall be charged with the duty of actively prosecuting the work of the congress, of securing regular and increased annual appropriations for the improvements of the rivers and harbors of the entire country without regard to specific localities or projects, and to this end to take such steps and use such means as will tend to mold public opinion in favor thereof. It should also be charged with the duty of increasing the membership of the congress of trade, commercial and waterways associations, corporations, firms and individuals, and shall formulate and send to all members copies of by-laws, which shall define the rights and duties of the members of the congress, and shall have the power to call conventions of the congress at such times as it may deem necessary in order to accomplish the results desired.

Upon the adoption of the report of the reorganization committee, committees were appointed on nominations of officers and resolutions. The nominating committee submitted the following list of officers, who were subsequently confirmed:

President—Joseph E. Ransdell of Louisiana.

Vice-Presidents from Each State or Territory Represented—A. C. Danner, Alabama; I. M. Worthington, Arkansas; Rufus P. Jennings, California; M. I. Weller, District of Columbia; S. M. Sparkman, Florida; E. F. Verdery, Georgia; Rudolph R. Bourland, Illinois; W. H. Keller, Indiana; J. L. Dobbs, Indian Territory; W. C. Williams, Kentucky; J. T. McClellan, Louisiana; Rufus K. Wood, Maryland; George E. Smith, Massachusetts; ex-Governor Van Sant, Minnesota; J. L. Hebron, Mississippi; Edgar C. Ellis, Missouri; Henry T. Clark, Nebraska; S. W. Sparks, New Jersey; Bird S. Coler, New York; James H. Chadbourn, North Carolina; J. T. Peters, Oregon; E. C. Gibbs, Ohio; George E. Bartol, Pennsylvania; Wm. C. Greene, Rhode Island; E. R. Richardson, Tennessee; Walter Gresham, Texas; S. H. Piles, Washington; Robert Hayslip, West Virginia; W. D. Morgan, South Carolina; W. W. Morton, Virginia, and Bart E. Lineham, Iowa.

Secretary and Treasurer—J. F. Ellison, Cincinnati, Ohio.

Board of Directors—W. H. Lincoln, Boston, Mass.; Olin J. Stephens, New York city; Frank D. La Lanne, Philadelphia, Pa.; Blanchard Randall, Baltimore, Md.; E. J. Hale, Fayetteville, N. C.; Wm. B. Stilwell, Savannah, Ga.; M. J. Sanders, New Orleans, La.; S. W. S. Duncan, Dallas, Texas; Wm. B. Rogers, Pittsburg, Pa.; Albert Bettinger, Cincinnati, Ohio; John L. Vance, Columbus, Ohio; Lawrence M. Jones, Kansas City, Mo.; Rufus P. Jennings, San Francisco, Cal.; A. H. Devere, Portland, Ore.; John A. Fox, Blytheville, Ark.; Thomas M. Wilkinson, Burlington, Iowa; Wm. P. Kennett, St. Louis, Mo.; M. J. Bryan, Nashville, Tenn.; James H. Davidson, Wisconsin; Harvey D. Goulder, Cleveland, Ohio; E. S. Conway, Chicago, Ill., and W. K. Kavannaugh, St. Louis, Mo.

The remainder of the afternoon session was devoted to addresses delivered by Messrs. Joel Cook, Philadelphia, Pa.; Lawrence M. Jones, Kansas City, Mo.; Mayor John Fitzgerald, Boston, Mass.; Hon. John Barrett, United States Minister to Colombia; Bird S. Coler, president Borough of Brooklyn, N. Y.; Albert Bettinger, Cincinnati, Ohio; James W. Porch, New Orleans, La.; ex-Senator James M. Berry of Arkansas; J. N. Teal, Portland, Ore., and Wm. G. Sterrett, Dallas, Texas. The keynotes of these addresses were urgent pleas for the necessity of the improvement of the waterways throughout the country and the many advantages to be derived from them, especially as they would provide the much-needed additional means of transporting the ever-increasing

agricultural and manufactured products of the land.

So large an attendance was foreshadowed for the evening session that it was held in the more spacious hall of the National Rifles' Armory. This session was given over particularly to a number of set speeches, which were delivered by Hon. John Sharp Williams of Mississippi, Hon. James A. Tawney of Minnesota, chairman of the House committee on appropriations; Governor George C. Chamberlain of Oregon, Mayor George W. Guthrie of Pittsburg, Pa.; ex-Mayor O. P. Walbridge of St. Louis, Mo., and ex-Governor David R. Francis of St. Louis, Mo.

Mr. Tawney said that more money was appropriated for the navy by the Fifty-seventh and Fifty-eighth Congresses than it will take to build the Panama canal, and that we spend more money for war or in the anticipation of war than it would take to improve every river and harbor of the whole country, and that more than 65 per cent. of the appropriation for 1906 was for pensions resulting from past wars or in anticipation of future ones. To accomplish what the Rivers and Harbors Congress wants, he added, one of two things must be done—either appropriations must be reduced or the taxes increased.

Mr. Williams in his remarks said that he was enthusiastically imbued with the purpose of the convention, and that he favored an increase in the annual appropriation for rivers and harbors work and a reduction in others, for he believed money appropriated for a cause which promised such excellent results and which would benefit the community at large was money not spent, but invested. All that has to be done, he added, to secure this end is to declare and command—declare that two or three less of the battleships of the "scared-o'-nothing" class be built and command that less money be devoted to waste and turned into investment channels, and that the people's representatives in Congress would be bound to bow to the popular will. He also referred to a plan for the sale of bonds for raising the necessary revenue, as did also Governor George C. Chamberlain of Oregon and several other speakers, who believed that posterity should bear its share of an improvement which would benefit them more than the present generation.

Ex-Governor Francis of Missouri referred to the urgent need of increased appropriations for the work in hand, and to permit this increase he argued in favor of an income tax. He said that it was unfortunate that President Roosevelt has not included in his annual message to Congress a recommendation for an increased appropriation, and that if the present Congress should adjourn without allowing any increase that an appeal should be made for an extra session.

Considerable interest was shown in the following telegram which was read by Secretary Ellison from James J. Hill, president of the Great Northern Railroad: "I deeply regret that I am unable to attend Rivers and Harbors Congress. In view of inability of railroads to move heavier classes of tonnage in entire country, there has been no subject before Congress in 20 years which interests so many people and will prove so great a benefit to the basin of the Mississippi and Missouri rivers as a 15-foot channel or canal from St. Louis to the Gulf of Mexico."

Mr. J. N. Teal of Portland, Ore., chairman of the committee on resolutions, in submitting the report of the committee at the morning session of December 7, made an earnest plea to the members of the convention to hold up the hands of those in direct charge of promulgating the work of the congress by providing the funds which are absolutely necessary to carry out their campaign plans of properly educating the public up to the pressing needs of waterway improvements, and he added that unless this was done all the flow of eloquence and enthusiasm displayed at the present meeting would come to naught. He submitted the findings of the committee in the shape of three propositions—first, that the Rivers and Harbors Congress demand of the National Congress that the rivers and harbors bills must be placed on the same basis as other bills; second, that a $50,000,000 appropriation for each year be set as a standard, and third, that the responsibility for providing ways and means be placed where it belongs—upon the Congress of the United States.

The resolutions which were subsequently adopted are as follows:

"Congress has demanded in the past an awakened public sentiment in favor of adequate appropriations for river and harbor improvement. We maintain the awakening has come. Congress must now recognize that public sentiment in favor of increased appropriations, as voiced by conventions and the press, has reached a point where the concern is not the advisability, but only the question of amount and frequency of such appropriations. Present conditions demonstrate that transportation facilities are totally inadequate for the prompt and economical transportation of the products of the country. Within the last 10 years the tonnage moved by railroads has increased 47 per cent., while during the same period railway mileage has increased only 20 per cent.

"Hundreds of millions of dollars are lost annually to our farmers and other producers by the failure of the National Government to provide the assistance which properly improved natural waterways will give in increased facilities for transporting freight.

"We maintain that water competition is the best and surest regulation of freight rate. The improvement of rivers and construction of waterways will afford the most natural, permanent and effective method of reducing and regulating the cost of transporting both our domestic and foreign commerce.

"The saving in the cost of transportation to both the producers and the consumers of the country will, through cheaper and competitive freight rates, more than justify the expense incident thereto.

"The opening of the Panama canal, which will so greatly increase our facilities for trade with the Orient, and the awakened development of closer business relations with South American republics, emphasizes the question of water transportation as one of national and international importance.

"All progressive nations have learned by experience the imperative necessity of using natural and artificial waterways for the movement of their products, and have adopted a policy of systematic development of such waterways, and the time has now arrived when the United States, with greater natural advantages, must also recognize the function of the waterway system in the economic development of this country.

"Events have shown the wisdom of the resolutions adopted at our last meeting, which we now reaffirm.

"The National Government having assumed the control of the rivers, harbors and waterways of the republic, it owes the people the prompt and efficient discharge of such function.

"Therefore, be it resolved, That we urge Congress to appropriate not less than $50,000,000 annually for the improvement of rivers, harbors and waterways, commencing with the present session of Congress."

Resolutions were also adopted appointing a committee to wait on President Roosevelt, the Senate and House of Representatives and present to them a copy of the resolutions of the congress. Ex-Governor Francis of Missouri was chosen chairman of this committee, and the resolutions were presented to the President in a few well-chosen words and were responded to by the President in the words already quoted, and which caused applause after applause to ring through the historic East Room of the White House, for at last the delegates realized that dawn had appeared on the horizon of their hopes and that with the approaching daylight would come the sun of success shedding its rays triumphant upon the glorious victory that must ultimately be attained.

Following the adoption of the resolutions addresses were made by P. J. van Loben Sels of San Francisco, Cal.; M. T. Bryan, Nashville, Tenn.; Lyman E. Cooley of Chicago, Ill.; Richard H. Edmonds of Baltimore, Md.; Rev. John McCarty of Huntington, W. Va.; Frank D. La Lanne of Philadelphia and Wm. B. Stillwell of Savannah, Ga. The session was concluded by five-minute talks by one member of the delegation from each State and Territory, and although insufficient for much to be said bearing on the subject, it was sufficiently long to show that there was a prevailing sentiment in every section of the country in favor of waterway improvement.

At a meeting of the newly-elected board of directors plans and methods were discussed for conducting the campaign during the coming year, and it was decided to endeavor to raise $50,000 for this purpose. Each member of the board pledged himself to assist in raising this amount and to further the interests of the Rivers and Harbors Congress in his particular section of the country.

POTENTIALITIES OF THE FORTY-SIXTH STATE.

[Special Correspondence Manufacturers' Record.]

South McAlester, I. T., December 7.

Should anyone be in doubt as to the status of Oklahoma and the Indian Territory, so soon to be joined in Statehood as the forty-sixth Commonwealth, a tour over their very extensive railway systems will quickly dissipate the doubt. The past season has been an exceptional one, inasmuch as the rainfall has been abnormal, and, based upon past records, largely unseasonable. Crops of all kinds have been superabundant in quantity, and in every variety of superlative quality. An early and wholly unexpected frost created some alarm as to the cotton crop, but really the frost proved a benefit to the white staple. The unseasonable rains have retarded picking, but apparently has inflicted no damage. The crop will be later in getting to market, but the aggregate output will not be decreased. Trade and travel in both Territories have suffered much inconvenience through the interruption of railway operations caused by almost continuous rains during several weeks past, all the trains on the trunk lines running almost invariably behind time from one to six hours. Great complaint is also heard in all sections of both Territories of the shortage of freight cars. The writer realizes how terribly the farmers especially were handicapped by this shortage of cars, during a recent tour over the trunk lines and their minor connections in both Territories. On all these lines, almost at every station, he found corn, cribbed in large quantities, and baled hay in huge piles awaiting shipment, while cotton bales were strung along the tracks not only at stations, but at switches, seemingly for miles. In the cotton section of the new State nearly every town has one or more gins with a compress or baling establishment, while it is no unusual sight to see a score or more of wagons with high sideboards loaded with seed cotton in the streets of towns or on the highways, following each other closely on the way to the cotton gins. It was also a pleasant sight to look upon the acres and acres of the staple standing white and patiently waiting the hand of the picker. In this connection, too, it is understood that cotton pickers are scarce, the prices for same ranging from $1 to $1.25 per 100 pounds, with board. It would seem that good money ought to be made out of these figures, as the normal prices range from 50 to 75 cents per 100 pounds.

Much corn yet remains unagthered in the fields, while huge wheat and hay stacks show up on almost every farm. At every town of any importance can be seen flouring mills in full operation, together with elevators. In most instances the latter are loaded to their full capacity, finding difficulty in unloading because of the scarcity of cars.

One thing is sure, even without consulting crop reports; it is a self-evident fact that Oklahoma will, from the very first day of her admission, take rank as one of the great agricultural States of the Union, not only in the matter of grains of all varieties, but in all classes of vegetables, grasses and hay products; especially will she be rich in the production of alfalfa, the most prolific and profitable of all the grazing or forage crops. In the matter of vegetables of all varieties produced in the temperate zone she stands today in the very forefront, and as to horticulture she will rank well up with California.

All things considered, it is wonderful that the two Territories have made such phenomenal progress, and this can only be accounted for by the fact that their natural resources are abnormal—rich beyond computation.

At present all mineral lands are segregated, no development having been made save upon leased premises, while the difficulty of securing titles or even satisfactory leases from the Indians has been a serious handicap. With Statehood will come more favorable conditions, and as a result additional capital will flow into the State, tending to a development that will surprise not only the most sanguine citizens, but the people of the nation at large.

The villages, towns and cities of both Territories are models of neatness, showing every evidence of convenience and comfort, and in no single one of them has the writer noticed any lack of thrift among the people. Most of them have up-to-date modern public utilities, and those that have not are figuring upon acquiring them at the earliest moment possible.

Both Oklahoma and the Indian Territory have several wide-awake, up-to-date cities, possessed of populations ranging from 5000 to 40,000, and each one of these cities is pluming itself to become the great commercial and manufacturing center of the new State. There can, of course, be only one chief city, and just at present conditions are too uncertain and developments too limited to even warrant a reasonable guess as to where that chief city will be located. One thing, however, is certain, there will be a score of great, at least important cities in the State, and developments at present point very clearly as to where these cities will be located. In a later article the writer will endeavor to point out the advantages enjoyed by each of these several places, leaving the reader to exercise his own judgment as to which is likely to become the greater city.

In the matter of minerals, oil, gas, etc.,

the new State as a whole will prove to be rich beyond the expectation of the most sanguine. The Indian Territory is already known to hold mineral, oil and gas wealth in vast volumes, but if the writer is not mistaken the gyp deposits of Oklahoma alone will place her as a close competitor to her sister Territory, besides the Wichita mountains, in the Kiowa country, are yet to be developed, and unless all signs fail, rich deposits of gold, silver and copper will yet be uncovered among them, besides there are lively indications that coal of the very best quality will be found in their foothills, while granite in inexhaustible quantities is known to exist throughout the range.

But more anon about the mineral resources of the two Terirtories, their development, the manufactures of the new State and their possibilities.

F. M. P.

CONCRETE AND CONCRETE WORK—VI.

By Ernest McCullough, Mem. West. Soc. Eng.,
Consulting Civil Engineer, Chicago.

Rubble concrete is used in thick walls. Concrete is made in the usual manner, but with stones one inch and under. It is made "soupy" and placed in the forms to a depth of six or more inches. Large stones and boulders are thrown and so placed that they do not touch one another. The thin concrete is poured between and over until the stones are covered at least two inches. Then more boulders are thrown in.

When too much care is taken to place the rubble no economy results, but when stone easily handled by one man is used and it is thrown in haphazard a great saving is often made.

Broken brick is often used, and when the bats are hard it is good, but not so strong as stone. Brick should stand in boxes or barrels full of water before being used in concrete. If this precaution is not taken the dry brick will absorb enough moisture from the concrete to damage it. Soft brick should not be used unless completely burned. Half-baked brick break down in the mixing and the mud injures the cement.

Considerable manipulation is necessary to make good concrete with well-filled voids, and any material that may break or chip during such handling is not good.

To estimate the amount of materials required for concrete there are a number of rules. Mr. Wm. Fuller ascertained the total number of barrels of cement used on several important pieces of work and also the cubic yards of stone and sand. With this data he finally evolved the following rule: Divide 11 by the number of parts in the mixture to get the barrels of cement.

Take, for example, a 1-3-5 mixture. The sum of the parts equals 9. Divide 11 by 9 and we get 1.22 barrels of cement per yard. Counting 3.8 cubic feet per barrel, the sand will be 3 times 3.8 cubic feet, or 11.4 cubic feet, equal to 0.42 cubic yard. The stone will be 5 times 3.8 cubic feet, or 19 cubic feet, equal to 0.7 cubic yard.

Mr. Gillette divides 10 by the sum of the aggregates, and for a 1-3-5 mixture gets by his rule 1.13 barrels cement, 0.48 cubic yard sand and 0.8 cubic yard stone.

There are a number of rules used, and on a large job it counts up fast in money if the rule does not fit the material. It is best to consider the voids and figure the matter. Average crusher run stone with the fine dust screened out will contain about 35 per cent. of voids. A cubic yard contains 27 cubic feet. Multiply 27 by 35 per cent. and add the result, 9.45 feet, to 27, which gives us 36.45 cubic feet. The sand is supposed to fill the voids in the stone and leave a little surplus. The cement will all disappear in the sand, so is not considered. Add the parts of sand (in this case 3) to the parts of stone (in this case 5), and divide 36.45 by the sum 8. The result is 4.56 cubic feet, or practically 4½ bags of cement. Multiply 4.56 by 3, and we get 13.68 cubic feet of sand, or 0.5 cubic yard. Multiply 4.56 by 5 and we get 22.8 cubic feet of stone, or 0.84 cubic yard. 4.56 cubic feet equals 1.2 barrels of cement if we allow 3.8 cubic feet per barrel.

This method of proportioning by voids is the most accurate. If we assume 35 per cent. of voids when the material may actually contain 40 per cent., or possibly only 30 per cent., the quantities will be wrong. It is best to ascertain the voids before making any calculations.

Voids in stone or sand are ascertained by filling a box with the material and then carefully and slowly pouring in measured quantities of water until the box is filled. The quantity of water represents the voids.

While there are several methods used to prevent freezing of fresh concrete, the safest rule is not to put in concrete when the thermometer registers below freezing. If the work must be done in extremely cold weather, employ a competent man and let him work in his own way. Don't butt in.

When putting a finish coat on a floor or sidewalk it must go on before the body has set. Otherwise it will not bond and will break and scale off. Too much troweling weakens the surface and causes it to scale and pit.

Any intelligent man can put in concrete. He only requires to be patiently taught and he must use common sense and proceed after getting reliable information. Some men will get their first job right and always do well. Others never do good work. As a rule, a fairly intelligent man can do good work after he helps experienced men on one or two jobs.

For the novice the best book on plain concrete work is The Cement Workers' Handbook, by Wm. H. Baker. It is full of practical points, and its low price, 50 cents, is in its favor. All scientific book dealers sell it. The leading cement manufacturers give away instruction books. The literature is extensive, and the material only requires common sense in handling to get good results. Reinforced concrete, however, must be left to educated engineers. The novice has no business touching it.

NEW KENTUCKY STRIKES.

The Drilling Area of the Oil Field Widened.

[Special Cor. Manufacturers' Record.]
Barboursville, Ky., December 9.

Some important discoveries have considerably widened the drilling area of the Kentucky oil field lately, and around a few chance strikes encountered in test drilling quite a little development work of a "wildcat" nature has sprung up.

One of the most promising of the newly-opened districts is in lower Wolfe county, in upper Kentucky. The Mountain Valley Oil Co., Lexington, Ky., developed a fine strike in that section a few days ago, and following this lead several concerns have begun leasing large acreages. Along the lower edge of Wolfe county and extending across the Breathitt county line many thousand acres of leases have been taken up during the past few days. The initial strike, good for 75 barrels daily, shows a fine variety of green oil, the best yet found in the South.

Another opening of importance, which is leading to new ventures in a new field, is in Scott county. The Indian Refining Co., Georgetown, Ky., recently drilled a successful test near its independent refinery in that county, and following this several thousand acres of leases have been acquired in territory contiguous to the "find." Other wells have now been started, and important results are looked for.

In Clinton county, another undeveloped field, the New Domain Oil & Gas Co. (Standard) is following up a recent strike of good capacity, and will drill a series of wells to further test the western section of the county. Across the line in Cumberland county this concern is also doing a great deal of test drilling.

The extended tests now under way in new fields indicate a continued healthy condition of the industry in this region. In high-grade fields of other States little of that class of work is under way because of market conditions, and operations are being greatly curtailed.

In the 11 established fields of Kentucky wells are now being put into better shape for the winter. Leases are being repaired, old wells cleaned out and shot and the maximum production will be brought out. The shooting of old and new wells is a feature of development work in upper Kentucky at this season, the shallow sand wells being shot to increase the flow and new deep sand wells being shot to bring out the maximum flow.

While the older divisions of the Kentucky field are not experiencing the usual activity, because of the advanced season and the low prices commanded by crude oil, there is little diminution of activity in the two largest fields—Wayne and Wolfe counties. Some important strikes have been made in these divisions during the past few days, the best producer being drilled by Porter Bros., Monticello, Ky., in the Sinking division of Wayne. The new strike shows a capacity of 100 barrels daily. Voegler Bros., Monticello, Ky.; Penn Lubricating Co., Pennsylvania, and others are pushing development work in the Cooper district of Wayne.

A new concern, the Green River Oil & Development Co., Morganfield, Ky., will prospect on newly-acquired leases in Butler county.

The Standard Oil Co. is now paying 85 and 55 cents for the two grades of Kentucky-Tennessee oil. The Indian Refining Co. is paying 87 cents for the better grade. These prices have prevailed the greater part of the current year, and no change is expected in the immediate future.

W. S. Hudson.

BALTIMORE SEWERAGE.

Contract for Mechanical Equipment of the Pumping Plant.

Contracts covering the complete mechanical equipment for the immense pumping plant to be used in connection with the new sewerage system in Baltimore were awarded this week to the Bethlehem Steel Co. of Bethlehem, Pa., at its bid of $450,000.

This equipment consists of the following: Three vertical triple-expansion sewage pumping engines, each having a rated capacity of 27,500,000 gallons in 24 hours and to have maximum output for short periods of 50 per cent. excess over rated capacity; two centrifugal pumps direct connected to two vertical compound drainage pumping engines and each having a rated capacity of 300 gallons per minute with 25 per cent. overload; three water-tube boilers, one fuel economizer, one electrically-operated traveling crane of 54-foot span and equipped with 20-ton hoist, main and auxiliary smoke flues, dampers and damper regulators, feed-water heaters, auxiliary boiler-feed pumps and condensors for sewage and drainage pumping engines.

The contract calls for the plant to be complete and in operation within 33 months after signing the contract.

All of this work will be done under the direct supervision of the Sewerage Commission, of which Calvin W. Hendrick is chief engineer.

Progress at Danville.

[Special Cor. Manufacturers' Record.]
Danville, Ky., December 10.

Having as its object the furthering of the industrial and commercial upbuilding of this city and county, the Boyle County Commercial and Development Society has been organized by some of the leading citizens. This, the first organization of the kind in this section, started with a large and enthusiastic membership, and the promoters hope soon to have a membership aggregating 300. The promoters are very enthusiastic, and say they will soon have the best commercial organization in the country. The commercial and industrial potentialities of this community will be set forth in attractive form before the country, and no efforts will be spared to interest the public at large in this section.

The extension of the Southern Railway to this city has been one moving factor in a stimulating growth, and several hundred thousand dollars are now being invested in utilities and in public and private building undertakings. Two railroad systems, the Queen & Crescent and Southern, now enter this section, and another, the Louisville & Nashville system, passes within three miles of this city. These lines furnish Boyle county with excellent transportation facilities.

The Danville Light, Power & Traction Co. is a new organization. The company is composed of St. Louis and local capital. A modern electric-light system has been installed, and plans have been prepared for a system of street railways. The indications are good for the early extension of an interurban line from this city to Junction City, to connect with the Louisville & Nashville line. The proposed line will penetrate a country rich in resources, and will no doubt prove a money-maker.

One of the best union railroad stations in the country for a city of this size has just been completed by the Queen & Crescent and Southern railroad systems. The station has been equipped with every modern convenience, and is a credit to the city and community.

Among building projects which will be carried out during the coming year, the new Fenderal building will perhaps be the most important. The structure will cost about $100,000. Central University will also spend $100,000 in the erection of a new dormitory, a new hall of science and a new library, the last-named building to be erected under the authority of Andrew Carnegie. Funds have been raised for the erection of these three buildings, which will materially increase the facilities of Central University, the oldest school of higher instruction in the South. Work will probably be commenced by spring.

Danville, already a center for higher instruction for women, will be made more so by the establishment of a great university here for women. The nucleus for a university has been provided in the shape of Caldwell College, and the Presbyterian Church has appropriated $80,000 for additional buildings. A productive endowment of several million dollars is expected to be raised.

Boyle county is one of the best agricultural counties in Kentucky. In the center of the bluegrass country there are some fine farm lands, and this is also the home of the thoroughbred horse. A large

amount of hemp is raised and is marketed in this city, where the large factory of Coger & Davis is located.

Big Coal-Mining Operations.

[Special Dispatch to Manufacturers' Record.]
Boston, Mass., December 12.

The Big Sandy Company of this city has just closed a lease with Mr. Fon Rogers, Pikeville, Ky., to open two new coal mines on its property in Pike county, Kentucky, which will have an output of 1000 tons a day. The Pike Coal & Coke Co., the Greenough Coal & Coke Co. and the Edgewater Coal & Coke Co., all of which have leases on this property, have contracted for mining machinery to be installed at once. The Marrowbone Coal & Coke Co., previously reported as opening its mines, has commenced shipments, and all of the operators now working on the Big Sandy property are realizing good prices for their coal, which is giving excellent satisfaction in the market as a steam and domestic fuel, while all coking tests which have been made indicate that the Elkhorn coal from Marrowbone creek will make a foundry and furnace coke unexcelled by any in the United States. In the near future beehive coke-oven plants will be built by all of the operations now working on Marrowbone creek. The Greenough Coal & Coke Co. expects to have its output up to 1000 tons a day inside of six months, and the other companies operating on this property under lease will shortly be able to make the same showing. As is generally known, the Big Sandy Company owns 130,000 acres of coal land in the heart of the celebrated Elkhorn coking-coal region of Pike county, Kentucky, and the mines which are now being opened up are expected to have during the coming year an aggregate output of at least 6000 tons a day.

Southern Power Co. Contracts.

It is announced at Charlotte, N. C., that the Southern Power Co., general offices in that city, has awarded contract to the Westinghouse Electric & Manufacturing Co. of Pittsburg, Pa., for 12 5000-horse-power generators, with transformers, switchboards and exciters to match. This contract is reported as approximating $400,000, and the machinery specified is for equipping the two new power stations at Ninety-Nine Islands, on the Broad river, six miles south of Blacksburg, S. C., and at Rocky Creek, on the Catawba river, two miles below Great Falls. These are two new developments of the Southern Power Co. (in addition to its plans previously announced), and were mentioned in the MANUFACTURERS' RECORD of November 8 as to be developed in the near future. When this machinery has been installed the Southern Power Co. will be in a position to generate a total of 100,000 horse-power by electricity, to be transmitted for power and lighting purposes. Other developments will be also proceeded with.

The Cotton Movement.

In his report for December 7 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 98 days of the present season was 6,332,849 bales, an increase over the same period last year of 411,819 bales; the exports were 3,194,108 bales, an increase of 515,877 bales; the takings were by Northern spinners 822,847 bales, a decrease of 120,741 bales; by Southern spinners 800,170 bales, an increase of 14,782 bales.

The Southern Association of Stove Manufacturers has re-elected the following officers: President, J. Will White, Memphis, Tenn.; secretary, E. W. Samples, Chattanooga, Tenn., and treasurer, F. T. Richardson, Chattanooga, Tenn

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

WESTERN MARYLAND WORK.

Great Progress of the Road in Four Years Reviewed in Annual Report.

The forty-fourth annual report of the Western Maryland Railroad Co., covering the fiscal year ended June 30, 1906, shows railway gross earnings of $4,802,094, increase as compared with 1905, $901,844; operating expenses and taxes $3,105,682, increase $593,261; net earnings from the railways $1,696,411, increase $308,583; income from other sources, namely, net profits of coal and other departments, $720,043, increase $291,732, and interest on deposits and other miscellaneous income $82,071, increase $21,074, making total income $2,498,527, increase $621,390; surplus after the payment of all charges $251,508, increase $45,411.

The report contains a great deal of information concerning the betterments and improvements made to the property since it passed into the hands of the present owners four years ago. In 1902 the report says the Western Maryland Railroad as it then stood was for the most part physically unable to handle modern motive power and rolling stock. Conditions were better on the West Virginia Central, which is now part of the Western Maryland, though it needed some renewals of bridges, etc. There were no tidewater terminals, and there was no connection between the two divisions of the property. Since then they have been connected by building the Cumberland extension from Cherry Run to Cumberland, Md., 60 miles, which was opened this year, and, besides, the tidewater extension at Baltimore was built, together with its terminals, and a large amount of betterment and improvement work was done on the old road. Over 130 miles of 90-pound rail have been laid, besides a small amount of 85-pound rail. Over 93 miles of the 90-pound rail was laid during the past year. There have been reballasted 245 miles of track, 1260 lineal feet of new steel bridges have been erected, 3870 lineal feet of trestles have been filled and 1080 lineal feet of masonry tunnel lining have been built, all the latter, excepting the track work, having been done during the last year, but 95 miles of the track work was within that period.

In adidtion to this, a number of new steel bridges and other structural work are under way, but not yet reported complete.

Work is now well advanced on rebuilding the line from Baltimore, Fulton Junction, to Emory Grove, 16.8 miles, to secure a reduction of grades and improved alignment, together with a double track, a general classification yard at Arlington and other facilities. Arlington is about three miles from Fulton Junction. The other piece of main line reconstruction is from Williamsport, Md., Potomac Valley Junction, to Big Pool, 13 miles, this to secure a reduction of grade and improved alignment, together with abolishing old trestles and creating new facilities.

The plans of the company to ultimately accomplish a considerable improvement in the general character of the railroad is shown by the statement that surveys between Arlington, near Baltimore, and Williamsport, Md., which includes the line over the Blue Ridge mountain, have developed a low-grade line with a maximum grade of 21 feet per mile eastbound and 42 feet per mile westbound, while between Williamsport and Big Pool the grades are now 16 feet per mile eastbound and 26 feet per mile westbound, which last grades are the same as those of the Cumberland extension from Cherry Run to Cumberland. The report says it was therefore expedient in reconstructing any portion of the main line between the vicinity of Baltimore and the beginning of the new Cumberland extension to do so with a view to making such new work conform to the ultimate project of the low-grade line. The need for the two sections above mentioned is most pressing. On the section from Baltimore to Emory Grove in the busy season 50 to 60 trains daily are handled on a single-track line under all the difficulties resulting from the usual congestion in approaching and leaving the terminals in a large city. The double-tracking of this piece of line being a necessity, it was considered wise to undertake it only in accordance with improving its alignment and in conformity with the predetermined plan of the future low-grade route, thus raising the standard thereof to conform to the present and future uses and purposes of the line. This improvement is so far advanced as to justify the belief that some parts of it can be used within the next few months and the whole during the next calendar year. It is part of the general scheme of terminal development in and about Baltimore. The need for improving the section from Williamsport to Big Pool is shown by the fact that the company's heaviest freight traffic passes over that section. This latter work will be completed before the end of this calendar year.

While nothing has been done between Emory Grove and Williamsport, about 73 miles, toward providing a low-grade route, an alternative plan has been adopted to relieve the situation pending a sufficient increase of business to justify the greater expenditures, and it is now being carried out. This consists of reballasting the line from Emory Grove, Md., on the main line via Gettysburg, Pa., to Highfield, Md., on the main line, and replacing the lighter rail sections with new 90-pound rails, thus forming a second main line between those two points which, while considerably longer, is a route of less severe grades. This latter betterment, considered in connection with the double-tracking from Baltimore to Emory Grove, will give practically two main-line tracks from tidewater to the summit of the Blue Ridge mountain.

It is noted that the construction of the Cumberland extension, continuing over a period of nearly three years, developed the necessity of providing greater facilities than were first estimated. For instance, twice the number of side-tracks were built, three large trestles were made permanent embankments, more buildings and telegraph facilities were provided, etc.

The company carried 7,505,466 tons of freight, an increase of 1,408,248 as compared with the preceding year, and the ton mileage was 495,064,764, an increase of 135,767,210. The average revenue per ton per mile was 7.28 mills. The freight earnings per mile of road were $7133.94, an increase of $1393.80. The number of passengers carried was 1,980,012, increase 148,919, and the passenger mileage was 45,715,348, increase 4,125,044. The average revenue per passenger per mile was 1.917 cents, and the passenger earnings per mile of road were $2061.35, increase $81.83.

The company now has 540.92 miles of main line, 27.44 miles of second track and 193.56 miles of sidings—a total of 761.92 miles of track. Its equipment consists of 155 locomotives, 125 passenger cars and 5708 freight cars. It has now ordered 20 consolidation freight locomotives of large pattern, 13 passenger cars and 700 steel hopper cars of 50 tons capacity.

The property of the Davis Coal & Coke Co., which manages the coal interests of the railroad company, consists of 135,000 acres of coal lands in West Virginia, all but about 3000 acres being on the company's lines; 23 mining plants, 823 coke ovens, 542 dwellings and other buildings connected with mine operating.

TIDEWATER RAILWAY.

H. H. Rogers Is Building It—Progress of the Construction.

Mr. H. H. Rogers, Jr., who recently visited Norfolk, Va., and inspected the Tidewater Railway, is reported as saying while in that city that Mr. H. H. Rogers of the Standard Oil Co., who is his father, is personally building the railroad, and that the Standard Oil Co. is not interested in the enterprise; furthermore, that his father would probably come down later to view the line.

It has been reported for two or three years that Standard Oil interests were back of the Tidewater, the construction of which in Virginia and also in West Virginia (where it is known as the Deepwater) has been distinguished by the fact that no stocks or bonds have been issued to the public, but that there is always plenty of money forthcoming for construction, and the work has been and is being rapidly pushed. Later it was said in various quarters that Mr. H. H. Rogers was providing the funds for the line, and this assertion obtained pretty general belief, but the statement credited to young Mr. Rogers is the first that has been published of an apparently authentic nature. As heretofore stated, the railroad when completed will carry to tidewater at Norfolk the output of large coal properties in and around Ansted, W. Va., where the offices of the Gauley Mountain Coal Co. are situated.

The Tidewater Railway will by the end of this month have 100 miles of track completed from Sewell's Point, near Norfolk, Va., to a point near Dolphin, Va., and the remainder of its line from that point to the West Virginia boundary, where it will connect with the Deepwater Railway, 232 miles, will be finished next year. On the Deepwater Railway in West Virginia a further extension has been built during the year from Jenny's Gap to Micajah, 26 miles, the latter point being 73 miles from the beginning of the road at Deepwater. This line from Micajah to the Virginia boundary, to connect with the Tidewater, 41 miles, will be completed in 1907.

M., K. & T. Management.

Mr. Adrian H. Joline, the new president of the Missouri, Kansas & Texas Railway, is reported as saying that the railroad will continue to be managed from St. Louis by Mr. A. A. Allen, the general manager, and that the financial affairs of the company will be directed in New York, also that the policy of the road with respect to its management is unchanged.

Concerning a report that a block of stock purchased by Speyer & Co. was for the interests of the Rock Island Company, and that it would hereafter control the Missouri, Kansas & Texas Railway, two members of the executive committee of the Rock Island and Frisco systems are reported as saying that the stock was not purchased for those interests, and that the company's policy does not contemplate acquiring other lines in its present territory, but looks to the development of lines now existing.

Another report concerning the stock transaction is that it may result in James J. Hill acquiring control of the M., K. & T. for a Gulf outlet for his roads.

Construction in the Carolinas.

Mr. E. L. Propst, president and treasurer of the Propst Contracting Co., Charlotte, N. C., informe the MANUFACTURERS' RECORD that the company has completed

for the Seaboard Air Line about five miles of track for a new yard at Monroe, N. C., and a passing track about three-quarters of a mile long at Houston, N. C. For the Spartanburg Electric Power Co. it has built a four-mile spur track from the main line of the Southern Railway near Blacksburg, S. C., to Gaston Shoals.

These contractors have also completed for the Southern Railway the following: Passing track at Richland, S. C.; passing track at Sumner, N. C.; passing track at Roselle, N. C.; passing track at Glass, N. C.; team track at Charlotte, N. C. They are now at work on the following for the Southern Railway: Grading five tracks at Kannapolis, N. C. (new town); filling in trestle on the Wilkesboro branch.

They are also at work grading on a contract of 22 miles of county roads for Gaston county, North Carolina. (About 12 miles completed.)

Appointments.

Mr. E. F. Cost, second vice-president of the Seaboard Air Line, has resigned, and on December 15 will leave the company and immediately become first vice-president of the Kansas City Southern Railroad in charge of traffic.

Mr. J. M. Turner has been appointed general manager of the Georgia & Florida Railway to succeed Mr. Cecil Gabbett, resigned. The Georgia & Florida Railway is the new merger of railroads formed in Georgia by Messrs. J. W. Middendorf, John S. Williams and others. Mr. Turner is general manager of the Raleigh & Charleston Railroad, in which Mr. Williams and associates are also interested, and he will continue to look after its affairs.

Mr. T. J. T. Hayes has been appointed traveling freight agent of the Southern Railway at Asheville, N. C., succeeding Mr. T. C. Coffin, who resigned.

New Equipment.

President L. E. Johnson of the Norfolk & Western Railway is reported as saying that the company has recently placed orders for 100 additional locomotives, and that the construction of 500 cars at the Roanoke shops of the company has begun. Orders for another 1000 cars are to be given as soon as the men and the material to build them have been secured.

The Southern Pacific system has ordered that about $6,500,000 worth of new equipment be purchased, and orders for $4,000,000 worth have, it is stated, been placed with builders of locomotives and cars.

The Norfolk & Portsmouth Traction Co. of Norfolk, Va., has, it is reported, ordered 40 motor cars and 200 trailer cars for use during the Jamestown Exposition. The motor cars will be supplied with air-brakes, and all the cars are to be delivered next March.

Kanauga Traction Co.

Mr. M. K. Duty, president of the Lorama Railroad Co., Pennsboro, W. Va., writes the MANUFACTURERS' RECORD that the Kanauga Traction Co. power plant will be located at Kanauga four miles above Gallipolis, Ohio, on the Ohio river, and the road will be about five miles long between and in those two points. It will finally reach from Gallipolis to Middleport, Ohio, passing through several other towns, but beyond Kanauga construction will not be done until later. The entire district through which the line will run is devoted to manufacturing.

Glenville & Kanawha.

Mr. Robert L. Ruddell, general manager of the Glenville & Kanawha Railroad Co., writes from Glenville, W. Va., to the MANUFACTURERS' RECORD that engineers are now making the final location of the line from Glenville to Weston, W. Va., and right of way is being obtained at a very satisfactory rate. A good line has been secured with a maximum grade of 2 per cent. and a curvature of 10 degrees.

This road will penetrate a fine belt of Pittsburg coal, and it is being laid out for the purpose of moving this coal at a minimum cost.

Railroad Notes.

Mr. H. J. Simmons, general manager of the El Paso & Southwestern system, El Paso, Texas, writes the MANUFACTURERS' RECORD that the company built during the past year 3.11 miles of line from Corta to Lowell, Ariz. The company has no construction in contemplation for the ensuing year.

Mr. William Allen White of Norfolk, Va., according to a report from Richmond, has been selected by both the representatives of the State of Virginia and of the several railorad companies interested to be president of the Richmond, Fredericksburg & Potomac Railroad, to succeed Mr. W. J. Leake, who lately resigned.

The Norfolk (Va.) Common Council and Board of Aldermen have voted in favor of appropriating $50,000 for the extension of the Norfolk & Portsmouth Belt Line Railroad over the eastern branch of the Elizabeth river to the mouth of Cannon's creek, Hampton Roads, a distance of about five miles. The appropriation is given, it is stated, under the condition that construction work is to begin immediately, and a bond to guarantee that this will be done must be given.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

Printed Films for Cinematograph.

A. M. Christoffanini, via Garibaldi 18 (Palazzo Russo), Genoa, Italy:

"What interests me most are printed films ready for projecting pictures with the cinematograph. They may be either black or colored—animated scenes in black and colors like those made by the Edison Manufacturing Co. I would be grateful if you would put me in communication with some good factory that can compete with the best foreign houses not only in the general quality of its productions, but also in the stability of its impressions and in the selection of its subjects."

All Kinds of Mining Equipment.

Harnian Jury Hermanos, Cananea, Sonora, Mexico:

"You, of course, are aware that this State, Sonora, is a mining country producing absolutely nothing but precious metals, and for this reason is a buyer of every kind of product for mining purposes that is put on sale. We can take charge of the sale of any article whatever which might be confided to us for the account of the producer."

Plans for Sewerage System.

It is contemplated to build a sewerage system for the city of Shelbyville, Ky., and a commission has been appointed to further the project. This commission will secure the plans and specifications for a system. It invites sewerage engineers to visit Shelbyville and the surrounding country and after investigation present the most feasible plan for constructing the sewerage system. For circular-letter relating to the proposition address C. W. Ballard, secretary of the commission.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Building Operations in November.

Reports from a number of cities throughout the South and Southwest show that building operations are steadily increasing, both as to the number of building permits issued and the value of the structures. In Knoxville, Tenn., the value of buildings for which permits were obtained in November is estimated at $104,480, an increase of $24,730 over November, 1905, and of $25,255 over November, 1904. Among the important permits issued during the month were those to the Mynett estate for the erection of a store to cost $30,000; apartment-house for T. M. Michaels to cost $15,000; apartment-house for H. L. Underwood to cost $15,000, and a store for August Uhlrich to cost $10,000. In Atlanta, Ga., there has been a notable increase in building activity, the estimated value of structures for which permits were issued during the first 11 months of 1906 being $4,813,879, as compared with $3,312,931 for the entire year of 1905. It is estimated that in Macon, Ga., a total of $450,000 shall have been expended in that city for new buildings during the year ending December 30. Among the prominent buildings under construction there is one for B. L. Jones to cost $60,000, which will be used as a hotel and store building, together with a number of structures of less prominence. In Mobile, Ala., for the first 10 months of the present year the valuation of building operations is estimated at $1,063,143, which is slightly less than the total estimated value of all buildings during the entire year of 1905. By the end of the year the figures are expected to show an increase of about $300,000 over last year. The report by Building Inspector Lind of Birmingham, Ala., shows that the total estimated value of building operations in that city during November is $133,280. Of this total, $111,250 represents the value of new buildings begun during the month, and $18,520 the value of repairs and alterations. Figures compiled in the Building Inspector's office of Memphis, Tenn., indicate the valuation of buildings for which permits were secured during the month to be $7326 in excess of the corresponding month last year. In Jacksonville, Fla., permits were issued for 86 new buildings in November, of which 80 were for frame and 6 for brick structures. Since May 3, 1901, a total of 6320 buildings have been erected in Jacksonville.

Shipments from Jacksonville.

Shipments of lumber and crossties from Jacksonville, Fla., during November amounted to 26,011,466 feet, and were divided as follows: Crossties, foreign (25,457), 1,145,565 feet; crossties, coastwise (82,365), 3,706,425 feet; yellow-pine lumber, coastwise, 18,906,976 feet; cypress lumber, coastwise, 830,000 feet; yellow-pine lumber, foreign, 1,422,500 feet. In addition to the lumber, other shipments were 100,000 shingles, 38,115 packages of sundries, 31,513 barrels of naval stores, 28,085 sacks of clay, 3500 packages of produce; 3600 bundles of shingles, 138 barrels of soap, 90,510 boxes of fruit, 500 packages of cottonseed meal, 25 tons of general merchandise, 43,750 boxes of oranges, 975 bales of cotton, 130 cases of cigars, 100 barrels of cottonseed oil and 1467 packages of sash and doors.

Gulfport's Shipments.

Figures compiled by the Gulfport (Miss.) Progressive Business League show that the lumber shipments from that port during November aggregated 26,100,000 feet, board measure, valued at $566,247. Total shipments for 11 months of 1906 amount to 272,583,000 feet, as compared with a total of 207,614,000 feet for the entire year of 1905. Shipments of naval stores during November amounted to 17,624 barrels of rosin, valued at $68,600. Imports for the month included 6000 barrels of creosote, with an estimated value of $22,437.

New Lumber Company.

Incorporation of the Ravenscroft Lumber Co. has been effected at Oakland, Md., with a capital stock of $25,000. The company holds options of several tracts of timber land along the Baltimore & Ohio Railroad in Maryland and West Virginia, the purchase of which will be closed, it is said, and active development work begun within a short time. Officers of the company are Messrs. R. A. Ravenscroft, president; W. Ravenscroft, treasurer and manager, and B. C. Feathers, secretary.

Wants Lumber Orders.

Mr. James A. Dezell of Mt. Pleasant, Fla., advises the MANUFACTURERS' RECORD that he will shortly commence cutting a body of virgin long-leaf yellow-pine timber on the line of the Apalachicola Northern Railroad, now under construction. Mr. Dezell wants orders for car sills or similar material, which he will stack to dry until shipping facilities are ready, which will probably be within 60 days.

For the Isthmus.

Assistant Purchasing Agent S. E. Redfern of the Isthmian Canal Commission at New Orleans, La., has asked for bids for a quantity of lumber and timber to be used in the construction of the Panama Railroad. It is stated that the commission wants 1100 creosoted piles and about 400,000 feet of creosoted timber, besides 1,160,400 feet of rough and finished lumber.

Builders' Exchange Organizes.

At a called meeting of the Builders' Exchange of Savannah, Ga., last week a constitution and by-laws were adopted and the organization of the exchange perfected by the election of the following officers: President, L. A. McCarthy; first vice-president, A. A. Artley; second vice-president, Charles S. O'Connell; secretary, Chris. H. P. Murphy; treasurer, Cecil C. Pacetti.

Buyers of Hardwood Logs.

Mr. N. L. Stafford of Kingsland, La., wants to communicate with buyers of hardwood logs.

Lumber Notes.

The Orange (Texas) Lumber Co. last week sent a tow of 450,000 cubic feet of sawn timbers to Port Arthur for export to Europe on account of C. B. Wilcox.

The Dutch steamship Beta arrived at Pascagoula, Miss., a few days ago for the purpose of loading a cargo of 2,000,000 feet of lumber for the Argentine Republic on account of Hunter, Benn & Co.

Messrs. W. T. Sears & Co. of Wilmington, N. C., have completed a contract for furnishing 1,500,000 feet of lumber for the Jamestown Exposition, and are reported to have secured an additional contract for 2,000,000 feet, which may be increased to 3,000,000.

Many thousands of tons of steel rails are at present being unloaded at the wharves of Galveston, Texas. They are being brought there in steamships direct from the rolling mills, and are for the use of the railroads of Texas. Most of the rails are for the Santa Fe system, and will consist in all of about 2000 carloads. They are 85-pound rails, and will be used in replacing the smaller rails on the entire system.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

The Waxahachie Cotton Mills.

In June last the Waxahachie (Texas) Cotton Mills was referred to as about to award contract for the erection of an additional building in connection with a previous decision to increase the plant's equipment by 5000 spindles and 50 looms. That contract was awarded and the work has since been progressing. The new building is 100x200 feet, one story high, of red brick and cement stone. Its machinery has been contracted for, and will soon begin to arrive for installation. The company is also planning some other improvements, including the erection of another warehouse (the third), the erection of 15 operatives' cottages and the installation of a complete fire-protection equipment. The latter and some of the operatives' cottages have been contracted for. Mr. John Hill of Atlanta, Ga., is engineer in charge of the improvements. The Waxahachie Cotton Mills has been operating 5000 spindles and 150 looms.

The Mayes Cotton Mill.

Construction work on the mill of the Mayes Manufacturing Co. of Charlotte, N. C., is progressing steadily, the building contractors being Messrs. T. C. Thompson & Bros. of Birmingham, Ala. This mill company was referred to in the MANUFACTURERS' RECORD of August 2 as having awarded contracts for its buildings and machinery. Its mill site is on the Catawba river, two miles from Belmont, N. C., and the initial equipment will be 10,000 spindles for manufacturing combed and carded yarns. Eventually the company expects to have 25,000 spindles in operation. Mr. J. H. Mayes is president of the company, and the capital stock is $100,000. Mr. Stuart W. Cramer of Charlotte, N. C., is the engineer in charge.

The Acworth Mill.

It is reported that the Acworth (Ga.) Cotton Manufacturing Co. will have its plant ready for operation by next spring. This company is now installing its equipment of machinery, and was previously referred to at the time of organization. It has a capital stock of $100,000, and the plans for the plant were prepared by A. F. Walker of Atlanta, Ga. The specifications called for the erection of a 75x281-foot building and the installation of 5000 spindles for manufacturing yarns. Mr. Orlando Awtrey was elected president.

To Enlarge Woolen Mill.

The Sedalia Woolen Mills Co. of Sedalia, Mo., will increase its capital stock from $30,000 to $60,000 and enlarge the present mill from a one-set to a two-set equipment. Additional buildings will be erected at a cost of about $10,000, and considerable new machinery will be purchased. All the betterment work and purchases are in charge of F. F. Hugelman.

The Magnolia Mills Co.

A charter of incorporation has been granted to the Magnolia Mills Co. of Concord, N. C., with a capital stock of $25,000, for manufacturing cotton goods. Messrs. J. M. Odell and W. R. Odell are the incorporators.

Textile Notes.

Rumors credit J. P. Wilson of Waynesville, N. C., with planning the erection of a cotton mill.

It is reported that J. A. Glenn and associates of Kings Mountain, N. C., are planning to build a cotton mill.

Messrs. W. A. Carver, H. L. Carver, J. K. McCutching and others of Rougemont, N. C., propose forming company to establish a knitting mill.

Messrs. Jasper Miller & Son of Charlotte, N. C., have completed the installation of a carding plant in connection with their cotton-waste mill.

Reports state that Messrs. J. H. Price, R. H. Hanna and M. R. Deabills of Maryville, Tenn., have formed the Maryville Knitting Mills and contracted for equipment of knitting machinery.

The Business League of Aberdeen, Miss., has received a proposition for the establishment of a cotton mill. Capitalists offer to invest $75,000, provided Aberdeen investors subscribe $50,000 to the stock of company to be formed.

Reports state that S. B. Tanner, president of the Henrietta Mills, Henrietta, N. C., will build a cotton mill at Hendersonville, N. C., where he is said to have purchased a water-power for development to furnish the power required for the mill.

It is reported that Messrs. S. K. and S. T. McIlhenny of Houston, Texas, will increase the warehousing facilities and make other improvements to their plant, the Houston Cotton Pickery, during 1907. This plant handles dirty and low-grade cotton by cleaning it and grading it for the market.

Building at Gulfport.

Mr. S. C. Gardner, secretary of the Progressive Business League of Gulfport, Miss., writes to the MANUFACTURERS' RECORD that a great deal of construction and building is being done at Gulfport, and he specifies a $16,000 opera-house with a seating capacity of 1200, to be completed by January 1; a 30-room brick hotel to cost $22,000, to be completed in two months by Mr. F. Ross; a 26-room hotel of brick and stone to cost $23,000, by G. W. Banfil; a $4500 7-room dwelling, by Mr. E. W. Wells; a $4000 residence, by Mr. I. E. Lewis; a $5000 residence, by Mr. L. L. Chevally; a 10-room two-story $7000 residence for Mr. J. I. Ballenger, and an 8-room two-story residence for Mr. J. F. Galloway. Secretary Gardner adds:

"In addition to these improvements, the Gulfport & Mississippi Coast Traction Co. is putting down about three miles of track on Twenty-fifth avenue, and this will give accommodation to a number of citizens. The Traction Company intends to further extend its lines in the near future.

"There is also to be built shortly a canning factory capitalized at $25,000. Charter is now being prepared, stock having been subscribed.

"A $6000 cement and stone works is also an assured fact of the near future. There is also a number of cottages being built in order to accommodate the people who work in Gulfport at this time but go to the suburban towns on account of lack of accommodation in Gulfport. This is a very greatly-needed feature.

"The Gulfport Building Co. is formed for purpose of building houses on plan of building and loan associations."

Business and professional men of Little Rock, Ark., have subscribed more than $11,000 of the $25,000 necessary to secure the establishment of a hardwood plant and a large lumber mill, together with a 17-mile railroad in connection with the latter, near the city.

MINING

Deals for Limestone Land.

Mr. H. H. Rutherford of Martinsburg, W. Va., is reported to have closed a deal for the sale of about 400 acres of limestone land in the vicinity of Martinsburg to the American Lime & Stone Co. for $120,000. This property adjoins one of the quarries of the purchasing company, and it is stated that transportation facilities will be had by a connection with the Baltimore & Ohio Railroad, the right of way for which has already been secured. It is stated that contracts for crushing machinery have been let to the Allis-Chalmers Company of Milwaukee, Wis., and a plant to have a daily capacity of 100 tons will be installed at a cost of $35,000. The company is also reported as contemplating the installation of a cement plant. The American Lime & Stone Co. is capitalized at $750,000, of which $250,000 is preferred stock, and includes among its incorporators Messrs. Lyle L. Jones, J. Mentor Caldwell, Blanchard E. Hiatt, H. M. O'Blemess and H. Randolph McCluer, all of Parkersburg, W. Va. Mr. C. D. Bumgarner of Parkersburg is the president of the company.

Another purchase of limestone land is reported to have been closed by J. D. Baker of York, Pa., who takes over the limekilns of S. S. Cline of Bunker Hill, W. Va., for $15,000. In addition to this purchase, Mr. Baker is said to have bought other tracts of limestone land in the vicinity of Bunker Hill, and is constructing a line of railroad from the lands to connect with the Cumberland Valley Railroad about a mile from Bunker Hill. An approximate amount of $200,000 is reported to have been expended in this enterprise, including the operation of the old kilns and erecting new ones. When plans now under way shall have been completed nearly 600 men will be employed, the number now being 200.

Development in Dade County.

Articles of incorporation have been granted the High Carbon Coal Co., with an authorized capital stock of $250,000, to develop coal lands in Dade county, Georgia. The property is located along the Nashville, Chattanooga & St. Louis Railway in the vicinity of Whiteside, Tenn. It comprises about 700 acres, and was leased from the Phoenix Coal Co. Officers of the new company are Messrs. James K. Hines of Atlanta, Ga., president; E. M. Jones of Chattanooga, Tenn., vice-president and general manager, and R. E. Watson of Atlanta, secretary. Principal offices will be maintained at Atlanta, Ga., and a branch office at Room 12, News Building, Chattanooga, Tenn.

In New River District.

Coal loading in the New River district for November shows a slight increase over the tonnage for October. The car supply is reported to be somewhat improved, but still inadequate to meet the needs of operators. The number of cars of coal loaded during the month was 9819, aggregating 464,560 tons, and of the total number loaded, 5858 were shipped to tidewater. Coke shipments amounted to 688 cars, loaded at the following point: Quinnimont, 34; Beechwood, 6; Stone Cliff, 19; Macdonald, 88; Turkey Knob, 24; Collins, 78; Harvey, 80; Fire Creek, 33; Ansted, 121; Rush Run, 50; Brooklyn, 37; Kaymoor, 118; total cars, 688.

West Virginia Coal Lands.

The MANUFACTURERS' RECORD has advices that F. M. Osborn and associates of Cleveland, Ohio, are organizing the Wyoming-Pocahontas Coal & Coke Co. for the purpose of taking over about 27,000 acres of coal lands in Raleigh and Wyoming counties, West Virginia. This property has already been acquired, and it is the purpose of the new company to thoroughly test it as to the different measures of coal. If results warrant, it will be developed either directly or by lease to other operators, but work will probably not be under way for some time.

Coal Deal in Tennessee.

Reports from Oliver Springs, Tenn., announce the purchase by O. M. Bowling of the H. B. Bowling Coal Co., postoffice at Coalfield, Tenn., of the Little Brushy Coal Co.'s properties, located on the Harriman Northeastern Railroad, three or four miles from Petros. This property, which has been developed to some extent, was purchased, it is stated, for $30,000, and in addition to this Mr. Bowling is reported to have purchased other coal properties with a view to operating on a large scale.

Mining Notes.

A report from Rich Hill, Mo., states that the Missouri Pacific Coal Co. has purchased the New Home mine in that district and will begin to develop the coal at once.

Messrs. Gustave B. Hengen of Chicago, Ill.; William J. Cox and Maurice K. Gordon, both of Madisonville, Ky., have organized the Kentucky Midland Coal Co. with a capital stock of $1,250,000.

Messrs. J. Clarence Hall, H. J. McElfresh, J. F. Straight, H. J Ross and H. C. Sample, all of Fairmont, W. Va., have incorporated the Marsh Coal & Coke Co. of Fairmont, with a capital stock of $200,000, for the purpose of acquiring coal lands, operating mines, etc.

The Connellsville-Fairmont Coal & Coke Co. of Uniontown, Pa., has been incorporated with a capital stock of $100,000 to operate coal mines, manufacture coke, etc., in Marion county, West Virginia. Incorporators of the company are Messrs. John C. Shaw, H. A. McKinnie, E. M. Rensick, W. K. Burke and E. O. Rucks, all of Uniontown.

PHOSPHATES

Big Deal Reported Closed..

Reports from Nashville, Tenn., state that a deal which has been pending for control of the Howard-Carpenter holdings (Messrs. J. H. Carpenter and J. W. Howard of Columbia, Tenn.) of phosphate lands in Hickman, Williamson and Maury counties, Tennessee, has been completed, but no details of the transaction have been announced. Among the properties included in the deal the Leatherwood tract of 1200 acres in Hickman county is considered as the most important. It is said to contain very large deposits of high-grade phosphate rock. In addition to this tract there are several other less extensive properties in Maury and Williamson counties mentioned in the purchase. It is understood that capitalists of Nashville are interested in the enterprise, which is reported as involving $1,000,000, and that an independent company will be organized to develop the properties.

Savannah's Shipments.

The monthly report of Messrs. J. M. Lang & Co. of Savannah, Ga., as to the shipments of phosphate rock through the port of Savannah for November shows that six cargoes were cleared, aggregating 11,266 tons. Shipments went to England, Germany, Austria, Italy and the Netherlands, and were made by the Dutton Phosphate Co.

The Southern Securities & Trust Co. is reported organized at Gastonia, N. C., with $25,000 capital.

MECHANICAL

Large Rolling-Mill Engines.

As a result of the steady increase in steam pressures, higher rotative speed and its wide use in electric railway and rolling-mill work, the Corliss engine has been practically redesigned and greatly simplified to meet the severe requirements of these new conditions.

An interesting feature of the new continuous structural mill at the South Side Works of the Jones & Laughlin Steel Co. is the Corliss engine equipment. The three engines that operate this mill were designed and built by the C. & G. Cooper Company, Mt. Vernon, Ohio. They represent the most modern practice in engine design for this class of work, and are of the tandem compound condensing Corliss type. Two of the engines were shipped in 70 days after receipt of order, and the third, a 5000-horse-power machine, in less than 90 working days. The last named was an odd size, and had to be especially designed, requiring new drawings and patterns throughout. All the engines are directly connected to roll trains by means of steel couplings and equipped with variable-speed governors so arranged that the speed may be varied between 60 and 110 revolutions per minute while in operation. The normal speed, however, is 80 to 90 revolutions per minute.

Fig. 1 shows the 42 and 74x54 roughing-mill engine in course of erection, and Fig. 2 shows the same in more complete detail. The main shaft is of Bethlehem hollow hydraulically-forged steel, 27 inches diameter in the wheel fit and 25 inches diameter, 50 inches long in the main journals. The flywheel is 18 feet diameter, weighs 200,000 pounds and is of the built-up or segmental type. (See Fig. 3.)

The outboard pillow block is of the massive pedestal type (see Fig. 4). This pillow block is held down by 12 three-inch foundation bolts, and further locked into the foundation by means of a transverse rib extending across the bottom of the block. A heavy beaded edge and oil channel is cast solid with the block on all four sides for the purpose of catching oil from the journal, and also from the bronze thrust bearing between the coupling and the pillow block. This journal is the same size and design as that of the main bedplate, being provided with removable shells and adjusting wedges, which have full-length bearings against both side gibs.

As will be seen from Figs. 1 and 2, the guide barrel has a full-length support cast solid with it. This guide barrel is of extra heavy cross-section, bored in cylindrical form. The bed is of the tangye rolling-mill type, with extra depth underneath the main journals to insure maximum strength and rigidity. A heavy baseplate extends under the engine and unites with the bedplate in a bolted joint. This baseplate is 15 inches deep, is strengthened by heavy longitudinal and transverse ribs, and has a continuous beaded edge and oil channels. The cylinders and guide barrel are connected to the baseplate in planed joints, ample provision being made for relieving the engine of any undue strains of expansion and contraction.

The low-pressure piston floats on a hollow piston rod supported between the main and intermediate crossheads, and is the steel umbrella type, provided with follower and self-acting steam-packing ring. This piston does not come in contact with the cylinder except at the packing ring. The construction of this piston will be more clearly understood from Fig. 5. An intermediate crosshead and guide barrel is provided between the high and low-pressure cylinders as a support for this floating piston. This crosshead also forms an accurate connection between the high and low-pressure piston rods. The piston of the high-pressure cylinder is of the center ring type, with means for central adjustment, and has follower, self-acting packing ring and bull rings, which cover the entire face of the piston. These bull rings are fitted with alternate sections of composition metal and grooved for carrying the oil, as shown by Fig. 6.

The valves are of the multi-ported type, ground on dead centers and polished on all wearing surfaces, which insures a steam-tight fit. The steam valves of the high-pressure cylinder and admission valves of the low-pressure are direct driven from the rocker arms, and are under control of the governor to 75 per cent. of the stroke. The vacuum pots are of the Cooper improved piston oil sealed type. The valve gear is of steel, having all bearing surfaces lined with phosphor-bronze or council metal.

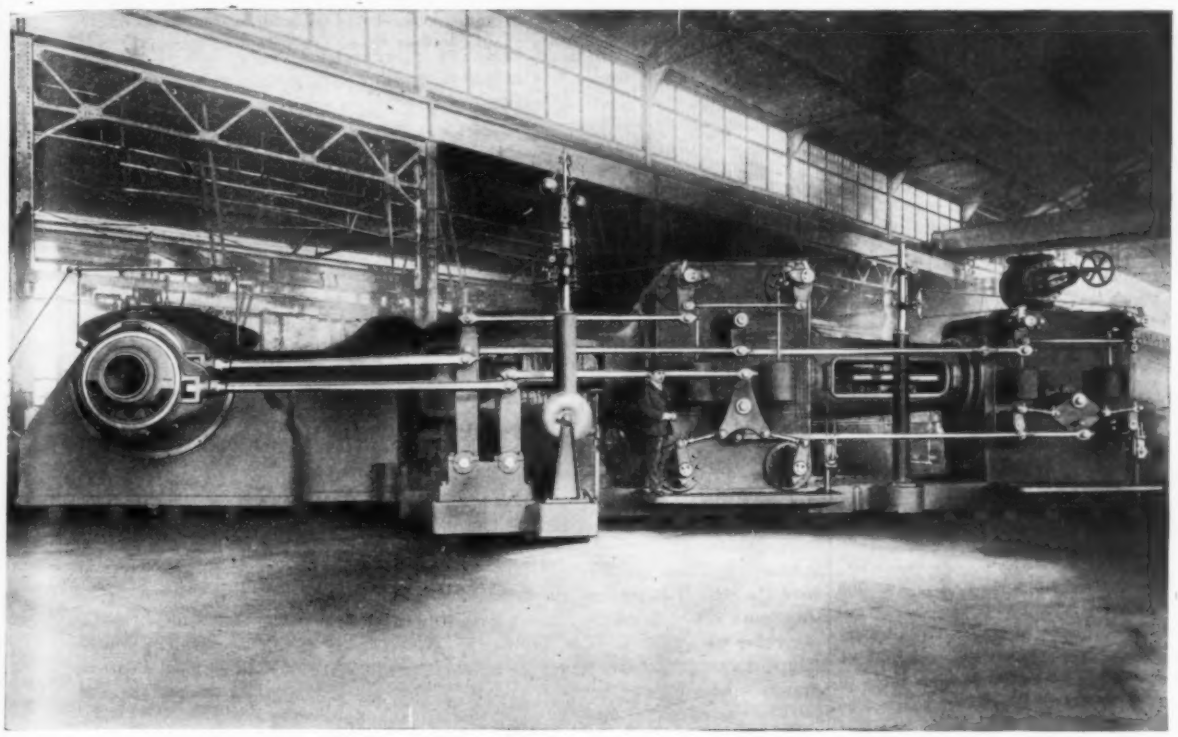


FIG. 1.—ERECTING A 42x74x54-INCH ROUGHING MILL ENGINE.

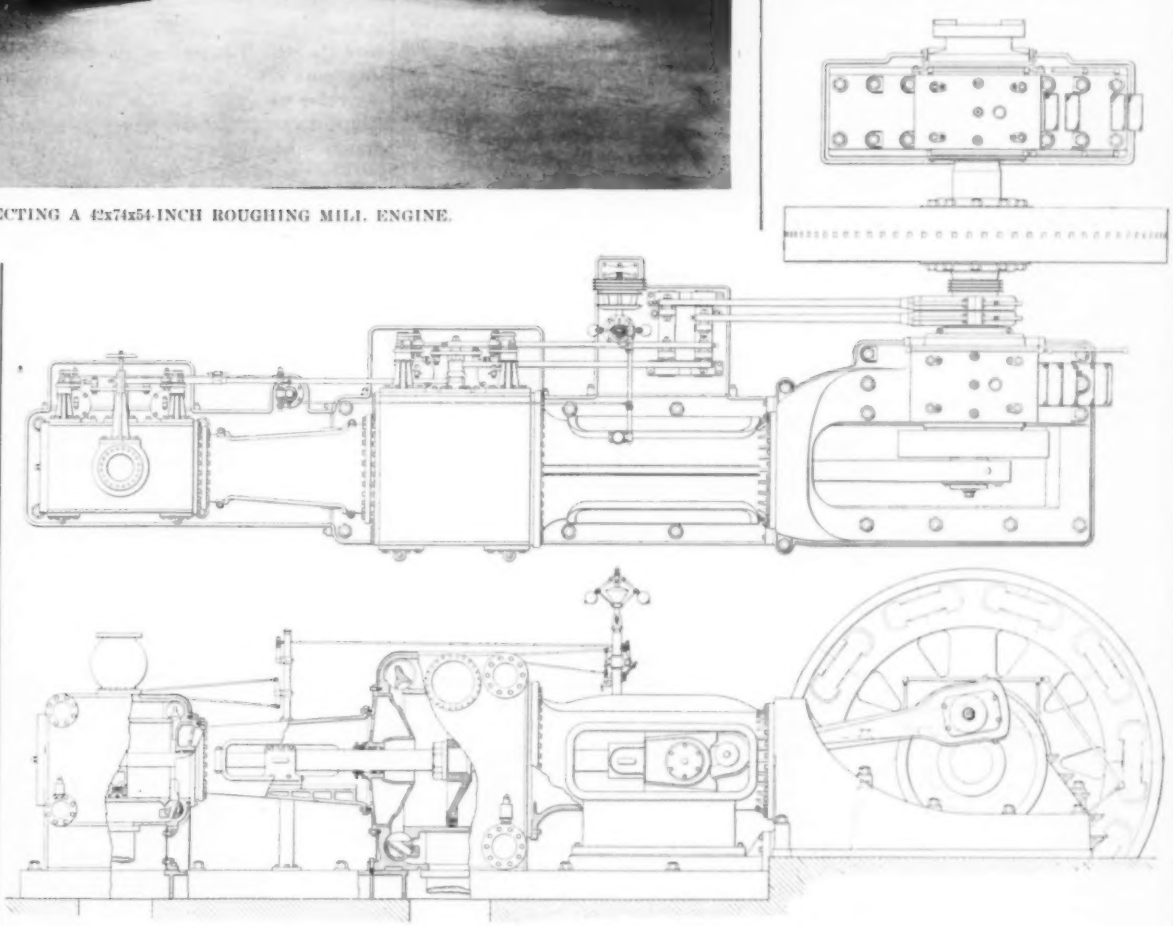


FIG. 2.—PLANS AND ELEVATION, ROUGHING MILL ENGINES.

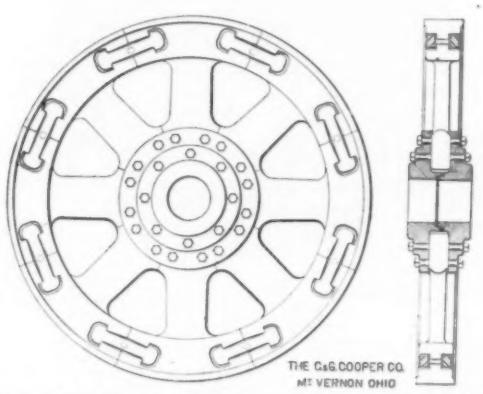


FIG. 3.—DETAILS OF 18-FOOT SEGMENTAL FLYWHEEL.

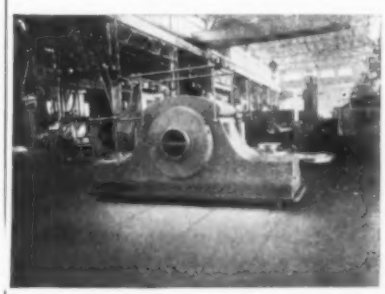


FIG. 4.—OUTBOARD PILLOW BLOCK, ROUGHING MILL ENGINE.

The finishing rolls are driven by a 38 and 66x48 engine, having main shaft 25 inches in diameter in the wheel fit, and 23 inches in diameter and 46 inches long in the main journals. The flywheel is 18 feet diameter, and weighs 160,000 pounds. This engine throughout is similar in construction to the roughing-mill engine.

The two straightening machines are driven by a 22 and 40x42 engine similar in construction to the larger engine. The flywheel on this machine is 16 feet diameter, and weighs 60,000 pounds.

The three engines are equipped with a gravity automatic oiling system furnished and installed by the C. & G. Cooper Company. The oiling systems for the roughing and finishing engines are each of ample capacity to serve both, and are so piped up that should the filter or pump of either system be out of commission the other may serve both engines. The cups and fittings are of the needle-valve type, so constructed that the glass reservoir of the oil cup is not under pressure, but the oil supply and pressure is against the needle valve. Each cup is independent in its operation, so that in case one cup is out of order it will in no way affect the other cups of the system. The cups and fittings are so arranged that should the entire system be temporarily out of service the cups will operate as ordinary sight-feed cups by simply throwing the lever on top of the cup and fill by hand. This system insures ample lubrication at all times with a minimum expense, since all oil is caught, returned to the oil filter and used over and over again.

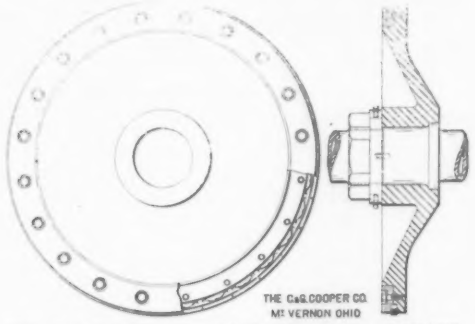


FIG. 5.—SKETCH OF STEEL FLOATING PISTONS.

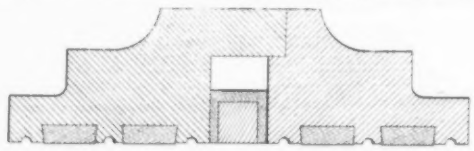


FIG. 6.—BULL RINGS OF HIGH-PRESSURE PISTONS.

It is stated that the engines made their trial run of nine hours up to speed the day they were started without showing any tendency to heat at any point. They have now been in successful operation about eight months, turning out a large tonnage of bars, beams, channels and other structural shapes.

Alfalfa Milling.

Alfalfa has been accorded much attention in recent years, and many are interested in its possibilities. Because of this, the following statement is timely:

"It is very doubtful whether anyone fully realizes the important part that alfalfa is yet to play in milling. Very few years ago alfalfa was looked upon in this country with more or less suspicion. Today it is entirely different, and the eyes of the farmer, the feeder, the miller and the shipper are fixed upon one of the greatest and most nutritious of all hay crops. Even in the Canadian Northwest, many miles north of Winnipeg, alfalfa is successfully grown. At one point for 16 consecutive days and nights the thermometer at this Canadian point registered 50 degrees below zero. The seed had been planted in the fall. It was planted good and deep with a low-down press grain drill. The press wheels packed the earth firmly over the seed and the plants came up in furrows fully six to eight inches deep. The side walls of these furrows protected the plants, the snow kept them warm and the furrows restained the moisture. There was no chance for the wind to blow the earth away from the young roots and thus cause them to be winter-killed. This is merely mentioned to show how far the alfalfa question has been considered. What does this mean to the miller? Simply this: Plenty of material to grind and a large and profitable market for his product.

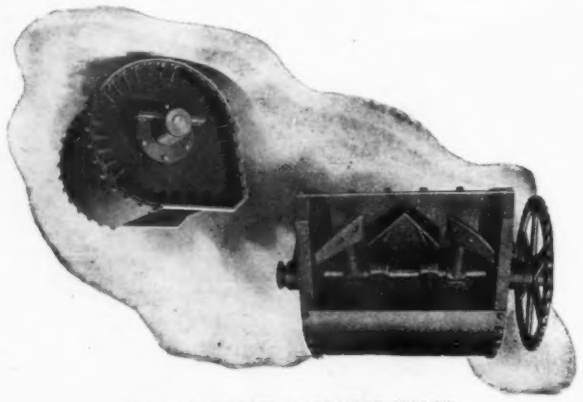
"Alfalfa is here to stay. The farmers are coming to a clearer understanding of the plant that yields them from three to four bounteous harvests every year. The stock-raiser—we say this in its broadest term—knows that there is not one domestic animal that will not wax fat on alfalfa in some one of the many food forms in which the modern miller prepares this most excellent ration. Every indication points to a growing market, to an ever-increasing demand. The farmer sees it and is bound to raise it. The scientific feeder knows what it will do for his stock, and he is determined to feed it. The manufacturer of grain drills has been forced to adapt his machines to properly plant it. The manufacturer of grinding mills has long been working on special machines with which to properly prepare the feed. Judging from some writers on the subject, 'any old mill' will not do the work, and many manufacturers who thought their mills would do the work have learned from bitter experience that their surmises were all wrong.

"Thus, it will be readily seen, many millers who embarked in this enterprise declared it unprofitable and abandoned the project after a season of soul and nerve-racking experiences. Investigation proves the fact that in almost every instance failure was due wholly to the crude and inefficient means employed in treating the product. Of course, it is but natural that some millers also added the extra burden of highly inefficient business methods, and therefore made failure doubly sure.

"The records show a number of pronounced successes in the alfalfa feed business. But these people secured the right equipment of machinery."

The Foos Manufacturing Co. of Springfield, Ohio, early saw the possibilities of alfalfa milling, and has for the past six years maintained an efficient department for the especial investigation of alfalfa milling—an experimental department devoted to the special development of machinery for the successful handling of alfalfa. The company has not asked the miller to do the experimenting. It stood the expense and all the annoyances, and when ready to come before the trade with its special scientific line of alfalfa machinery it knew the machines would do the work—machines that could and would be guaranteed in such a manner that the guarantee meant something to the purchasers. The company has installed a number of plants which have proven satisfactory. Its machinery will take the alfalfa either in bale or bulk and handle it automatically from the time it is fed into the first machine until it is turned out a finished product either as alfalfa meal or any of the intermediate grades of feed. Detailed drawings adapting the machinery to the peculiar requirements of any building will be furnished.

The Foos Manufacturing Co. is ready to hear from anyone interested in this subject.



THE AMERICAN CONCRETE MIXER.

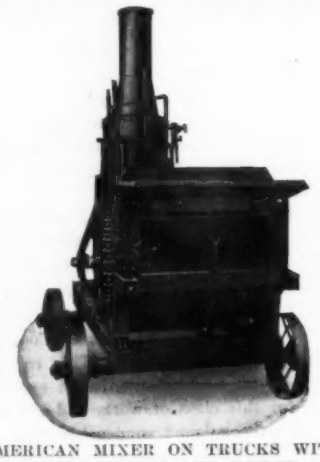
The American Concrete Mixer.

If it is true that "a mixer is known by the mixture it mixes," then the American concrete mixer must have a host of American friends. The machine, while extremely simple in construction and operation, is built on a new principle, and is a batch mixer. It consists of a heavy iron and steel drum with but one opening, and through its center a heavy steel shaft extends, to which the malleable-iron plow-arms are keyed. These, in turn, carry the steel plates, by which the perfect mixing is accomplished. During the mixing process this drum remains stationary and the plows revolve within it about sixteen times per minute. The batch is, therefore, turned sixty-four times, divided, subdivided and reunited just as often. It will be seen that by this process no separation of the fine and coarse material is permitted, nor can they become balled or rolled.

When a batch is mixed the discharge is effected by a slight movement of the clutch lever, causing the drum to tip forward. Upon releasing the lever an automatic attachment causes the drum to return quickly to its original position, and but three seconds are required to complete the discharge of the entire batch.

The drum of the American mixer and its working parts have been brought to a very high degree of perfection. The body of the drum is in three sections; the lower one, being very heavy, serves as a wearing-plate. Any of these sections may be removed and replaced quickly at a slight expense should the natural wear at any time affect them. In points of durability this is a decided advantage, for the drum of any mixer usually gives way to wear or abuse before any other working parts of the machine are materially affected. (See three accompanying illustrations.)

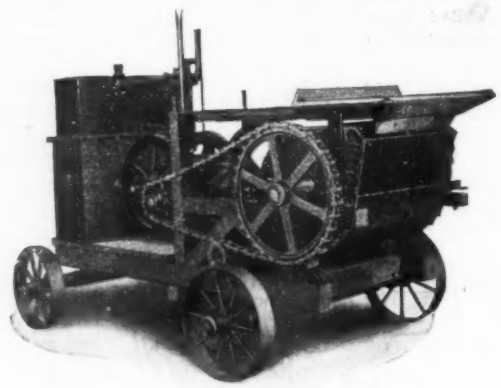
This mixer is manufactured in Columbus, Ohio, by the International Fence & Fireproofing Co., which claims the machine "will mix any and every kind of material perfectly, whether fine or coarse, dry or wet." That "it will mix mortar, plaster, cement finish or top coating of any kind just as well as it will mix coarse concrete."



AMERICAN MIXER ON TRUCKS WITH STEAM ENGINE AND BOILER.

The American mixer is being used on large Government and municipal contracts. Its manufacturer says it is used in every State and Territory of the United States and in many provinces of Canada, where the manufacturer expects to locate a new plant.

The machine is made in several sizes, for both end and side discharge, and furnished with any desired equipment.

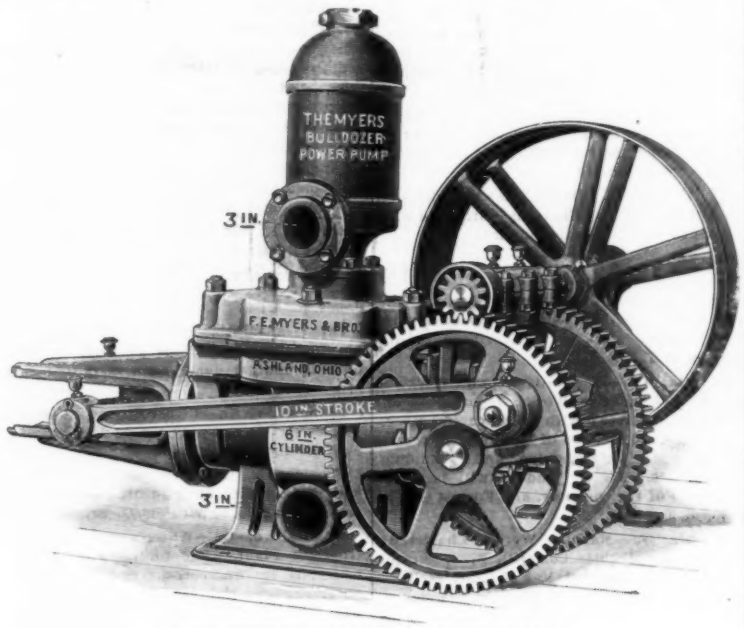


AMERICAN MIXER ON TRUCKS WITH GASOLINE ENGINE.

Myers Bulldozer Power Pump.

An accompanying illustration presents a view of a Myers product adapted to the wants that gasoline power and motors have developed. The machine is the Myers Bulldozer power pump as built with six-inch cylinder and 10-inch stroke. The pump is mounted on one base. The valve cap is held in position by six three-quarter-inch stud bolts, and by removing these the valves can be reached for repairs.

The pump throughout is considerably heavier in construction than the balance of the Myers Bulldozer line, this pump being especially designed for extremely heavy work.



THE MYERS BULLDOZER POWER PUMP.

The power is transmitted to the piston by two sets of gears, one on either end of the main shaft, thus increasing the strength.

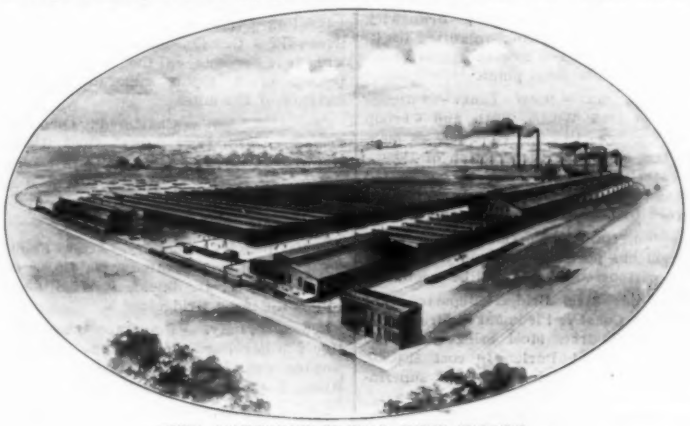
Specifications: Cylinder formed by the main body of the pump, which is bored and lined with a heavy seamless drawn brass tube 6 inches in diameter, with a 10-inch stroke; valve-seats of the grid pattern; valves are hard rubber, 4½ inches in diameter, fitted with coil spring, which assists in closing and also prevents slippage under heavy pressure; gears are double with 2½-inch face, with extra heavy teeth, back-geared 6 to 1; piston rod is brass-covered and driven from both sides, which insures perfect alignment; plunger is hemp-packed; guide for piston rod is mounted direct on cylinder head, has bored ways for crosshead; shafting is 1½ inches for belt pulley and 2 inches for gears; pulleys, 24 inches in diameter by 4-inch face; suction and discharge tapped for 3-inch pipe; speed not to exceed 40 strokes; capacity at 40 strokes per minute, 5800 gallons per hour; elevation against which this pump will operate is 150 feet perpendicular or equal pressure when properly piped and not restricted.

Each pump is tested in factory under 140 pounds pressure.

This pump is manufactured by F. E. Myers & Bro. of Ashland, Ohio.

The American Spiral Pipe Works.

For some years the American Spiral Pipe Works of Chicago has had a large trade in piping for long supply lines, high-pressure pipe for hydro-electric plants, piping for compressed air, exhaust steam, etc. Owing to the rapidly-increasing demand for its product, the company found it necessary to build a new plant this year. Twenty acres of land near the center of the city were obtained, comprising four city blocks, between Firty-sixth and Forty-eighth avenues, south of 14th street. Here have been erected modern buildings which are equipped with new and special machinery for producing spiral riveted pipe, forged steel flanges and hydraulic supplies. A view of this new plant is shown by an accompanying illustration.



THE AMERICAN SPIRAL PIPE WORKS.

The trackage facilities and railroad connections are extensive. There are three-quarters of a mile of trackage and connection with the Western Indiana Belt Railroad and the Chicago Terminal Transfer Railroad, the two main belt lines of Chicago, either of which connects with practically every road entering the city.

One of the special features of the plant is a Crane runway, which covers the billet and pipe yard to an extent of 600 feet.

The main pipe mill is of brick and mill construction. It is devoted exclusively to the manufacture of spiral riveted pipe and heavy plate metal work.

Adjoining the pipe shop is the material shed, of steel construction, where the steel plate used in the manufacture of spiral riveted pipe is received and stored. In this building is held from 2000 to 3000 tons of steel for immediate use when pipe is required for quick delivery.

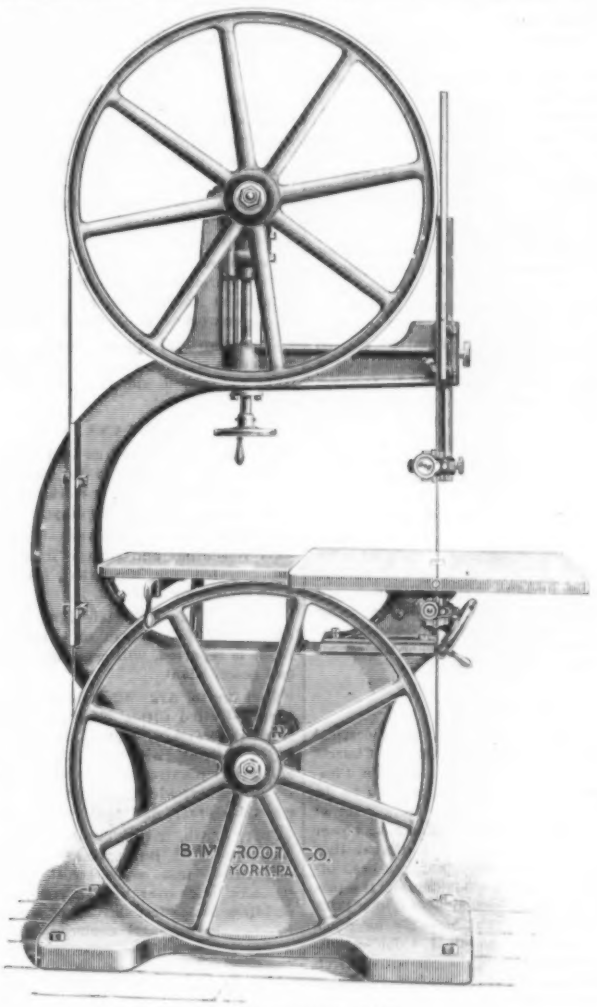
North of the pipe mill are the asphalting and galvanizing plants and testing-room, so arranged that the finished product is tested, galvanized or coated with asphaltum on its way from the shop to the shipping-room.

Parallel to the pipe mill are the forge shop, machine shop, stockroom and shipping-room, all of brick and steel construction. The forge shop is a very interesting feature. It has a number of special machines, said to be the largest and heaviest of their kind in the country, for producing rolled and forged steel flanges of every description, from the smallest boiler flange to the large steel pipe flanges, weighing from 300 to 400 pounds each.

This equipment enables the company to furnish forged steel flanges on practically all of its pipe.

Most of the machines are electric driven, operated by motors distributed throughout the plant, using an alternating current at 220 volts. A Corliss engine with direct-connected generator furnishes the power.

The new plant is several times the size of the old one. It is now well filled with orders and in a position to take care of further contracts.



A 36-INCH BAND SAW.

A 36-Inch Band Saw.

Lumber manufacturers and woodworkers will notice the accompanying illustration of a 36-inch band saw.

This machine is of a cored pattern, carefully designed, strong, rigid and symmetrical. All adjustments can be made without the operator leaving his position.

The table is tilted to any angle by the hand-wheel operating the worm and worm-gear, remaining fixed at any point without clamping. The table is 30x36 inches and is 40 inches from the floor. The space from the saw to the column is 36 inches, and from the table to the guide at the highest point is 17 inches.

The length of the saw is 19 feet, and width up to 1½ inches.

The Wright patent saw guides are used above and below the table. The guide bar is made of 1¼-inch polished square steel, counterbalanced by coiled spring, and easily adjusted.

The lower shaft is 1 11-16 inches in diameter, with three bearings, one outside of the pulleys, giving the wheel a very steady motion. The upper shaft is 13 inches long in bearings, 1 9-16 inches in diameter. Both shafts run in genuine babbitt metal boxes, very carefully fitted.

The adjustment for varying lengths of saws is made by the hand-wheel and screw, which raises or lowers the head carrying the upper shaft with wheel on the upright standard.

The tension for the saw is obtained through a spiral spring of proper elasticity and strength for light and heavy saws.

The wheels are made of an extra quality of cast iron, the rims turned inside and outside. They are covered with the best quality of rubber bands cemented to the rims. The wheels are ground true and carefully balanced.

The tight pulley is 14 inches in diameter, four-inch face, and the loose pulley 13 inches in diameter and four-inch face with long hub. The loose pulley, being less in diameter, relieves the strain on the belt when running idle, and with less friction on the bearing of the loose pulley. The speed should be 450 to 500 revolutions per minute.

The weight of the machine is 1400 pounds. Description of pattern B on application.

This band saw is manufactured by the B. M. Root Company of York, Pa.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are 'reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Anniston, Ala. — Water-power Electrical Plant.—Reported that William L. Church, consulting engineer of the Coosa River Power & Electric Light Co. (incorporated to develop the water-power of the Coosa river at Lock 3), has made a report concerning power plant to be constructed. It is stated that the consent of the Government has been obtained to construct a 30-foot dam on the proposed site of the plant which develops 15,000 primary horse-power and possibly as much subsidiary power. Roswell H. Cobb, Anniston, Ala., is president of the company. (Reference was made to this project December 14, 1905, and August 23, 1906.)

Birmingham, Ala.—Iron Furnace.—Tennessee Coal, Iron & Railroad Co. has blown out for repairs two of its furnaces in the Birmingham district; general offices, Birmingham; New York offices, 100 Broadway.

Birmingham, Ala.—Iron Furnace.—Williamson Iron Co., it is reported, has blown in furnace which has been idle for three years; daily capacity 80 to 100 tons.

Cullman, Ala.—Bridge.—Standard plans are being made for a deck type, through type and a semithrough type three 100-foot-span bridge at Cullman and Joppa road over eight-mile creek for approval by County Commissioners, after which bids will be advertised for and let in January or early in February; estimated cost from $4700 to $6500 for superstructure and $1000 to $2000 for foundation, according to type of bridge. Robert R. Pollock is County Surveyor. (Referred to December 6.)

Cullman, Ala. — Manufacturing. — Dreher Manufacturing Co. has been incorporated with $50,000 capital stock by Adam Dreher, Jr., Adam Dreher, Sr., and Amelia Dreher.

Enterprise, Ala. — Cotton Gin. — Farmers' Gin & Warehouse Co. will rebuild cotton gin reported burned last week. The plant will consist of a five-gin outfit; daily capacity 50 bales.

Epes, Ala. — Portland-cement Plant. — Reported that J. L. Ballinger, Columbus, Ohio, has been engaged as engineer in charge of the construction of Portland-cement plant mentioned November 29 to be erected by the Minona Portland Cement Co. at a cost of $550,000 and to have a daily capacity of 1500 to 2000 barrels. J. P. Wetherbee of Waynesboro, Miss., is vice-president; T. G. Kenan, secretary, and H. C. Armstrong, treasurer, both of Selma, Ala.

Ganer, Ala.—Naval Stores.—Ganer Turpentine Co. has been incorporated with $2000 capital stock to do a general naval-stores business. W. T. McGowin is president; John T. Roe, vice-president, both of Mobile, Ala., and G. B. McGregor of Ganer, Ala., secretary-treasurer.

Selma, Ala.—Cottonseed-oil Mill, Ice Plant and Fertilizer Factory.—Selma Oil, Ice & Fertilizer Co., reported incorporated last week with $80,000 capital stock, will establish 40-ton cottonseed-oil mill. Machinery has not been purchased. Ice plant will have a daily capacity of 25 tons of ice and 15 tons of refrigeration; equipment has been purchased. R. L. Oliver will be engineer of ice plant. R. W. Barnes is the company's president.*

Sheffield, Ala. — Iron Furnace. — Sheffield Coal & Iron Co. has blown out one of its furnaces for repairs; office, Sheffield, Ala.; New York office, 907 Maritime Building.

Townly, Ala.—Coal Mines.—Manasco Coal Co has been incorporated with $20,000 capital stock by C. W. Hickman, N. E. Smith and D. T. Bewell.

Tuscaloosa, Ala. — Water-works.—City has voted affirmatively the $125,000 bond issue mentioned November 22 for the construction of water-works. F. G. Blair is Mayor.

Union Springs, Ala.—Cottonseed-oil Mill. — The establishment of a cottonseed-oil mill is being considered, and C. C. Hanson is interested.

ARKANSAS.

Ada, Ark.—Water-works and Electric-light Plant.—City is reported to issue $40,000 of bonds to construct water-works and electric-light plant. Address The Mayor.

Batesville, Ark.—Hardware.—T. Rosenthal, Carl Rosenthal and George Rosenthal have incorporated the Rosenthal Hardware Co. with $50,000 capital stock.

Cotter, Ark. — Electric-light and Power Plant.—W. H. Standish of Grand Forks, N. D., it is reported, will establish electric-light and power plant.

Fort Smith, Ark.—Electric-light and Power Plant.—United Cities' Traction Co., incorporated with $100,000 capital stock to construct street railway, will also build electric-light and power plant. Ira L. Reeves is president; H. G. Baker, vice-president; J. W. Underwood, secretary, and J. T. Nelson, treasurer.

Fort Smith, Ark.—Trousers and Overall Factory.—W. C. Bollinger & Co., reported incorporated last week, will manufacture trousers and overalls. A two-story brick building, 50x140 feet, strong enough for three additional stories if desired, will be built. About $20,000 will be expended. W. C. Bollinger is president; W. O. Caldwell, secretary-treasurer; J. S. Hargrove, architect, and J. P. Sullinger, engineer in charge. It is contemplated to operate 75 machines within a year.

Hampton, Ark.—Land Improvement.—B. E. Halpin, W. C. Dunn, W. C. Ribenack and C. L. Poole have incorporated the Hampton Realty Co. with $10,000 capital stock.

Hermitage, Ark. — Hardware. — Hermitage Hardware Co. has been incorporated with $20,000 capital stock by W. T. Graham, R. P. Graham, B. M. Bowe and E. L. Bowe.

Little Rock, Ark. — Land Improvement. — Chartered: Olive Street Terrace Realty Co., with $10,000 capital stock, by W. C. Ferris, Moorhead Wright, E. J. Bodman and J. F. Loughborough.

Little Rock, Ark.—Lumber Company.—Jas. B. Dodd, R. W. Polk and Farley Price have incorporated the Quapaw Lumber Co. with $5000 capital stock.

Little Rock, Ark. — Street Paving. — Zeb Ward has contract at $16,049 for curbing, gutering and macadamizing West 12th street.

Pine Bluff, Ark. — Engineering and Construction.—Southern Engineering & Construction Co. has been incorporated with $5000 capital stock by Ada J. Robinson, Ben Robinson, J. B. White, Irving Reinberger, J. C. Wilson, James Gould and others.

DISTRICT OF COLUMBIA.

Washington, D. C.—Coal and Timber Lands. The Realty Banking & Trust Co. (now in process of organization) will, it is reported, operate extensively in coal and timber lands in Virginia, West Virginia, North Carolina, Kentucky and Tennessee. The company will have a paid-in capital of $1,000,000 and surplus of $200,000. Its officers are George C. Hazelton, president, Washington Loan & Trust Building, 9th and F streets; Henry M. Baker, vice-president; T. M. Lajord, secretary and auditor.

FLORIDA.

Cora, Fla.—Turpentine Distillery.—Pomona Naval Stores Co. will rebuild plant reported burned November 29. A building 50x100 feet will be erected; daily capacity 12 barrels of spirits turpentine and 40 barrels rosin.

De Funiak Springs, Fla.—Publishing.—Chas. F. Turner will install a newspaper plant; to begin publication by January 15. Complete equipment is wanted.*

St. Petersburg, Fla.—Steam Laundry.—S. R. Pyles of Ocala, Fla., has purchased site on which to erect steam laundry.

GEORGIA.

Americus, Ga.—Land Improvement.—Allison Realty Co. has been incorporated with $10,000 capital stock by R. E. Allison, A. W. Allison and J. S. Glover.

Atlanta, Ga.—Locomotive-repair Works.—Georgia Locomotive Works, reported incorporated December 6 with $25,000 capital stock, has begun the erection of building which will be equipped for repairing and rebuilding locomotives. W. H. Hudson will be vice-president of the company, and Forrest Green, general manager.

Atlanta, Ga.—Machine Works.—Chartered: Van Winkle Machine Co., with $1,000,000 capital stock, by Edward Van Winkle, Mell R. Wilkinson, Edward P. McBurney, Thomas J. Avery, F. M. Nash and W. H. Camp.

Atlanta, Ga.—Mining.—Incorporated: Lawrence Mining Co., with $10,000 capital stock by Morris Weil, Adolph Samuels and Milton Hirsch.

Atlanta, Ga. — Laundry. — Atlanta Hand Laundry Co. has been incorporated with $5000 capital stock by H. E. Summers, B. L. Heiss and J. B. Zachry, Jr.

Atlanta, Ga.—Amusement Resort.—Silver Lake Park Co. has been incorporated with $100,000 capital stock and privilege of increasing to $500,000 by C. H. Ashford, E. C. Thrash, James R. Gray, Dr. William Owens and associates. A tract of 500 acres of land in DeKalb county surrounding and including Silver lake has been purchased and will be developed as summer and winter resort. An automobile clubhouse and a hotel to have 200 rooms and cost $100,000 and residences will be built.

Brunswick, Ga.—Lumber Plant.—Brunswick Manufacturing Co. is being organized by R. R. Hopkins and others to manufacture lumber, taking over a local plant.

Brunswick, Ga. — Steel Tank. — Chicago Bridge and Iron Works, 105th and Throop streets, Chicago, Ill., has contract, as mentioned last week, for the erection of 100,000-gallon steel tank and tower to be located at Brunswick. (Tank erroneously mentioned last week to be constructed of concrete.)

Covington, Ga.—Cottonseed-oil Mill.—C. S. Thompson has purchased site on which it is stated a cottonseed-oil mill will be erected.

Darien, Ga.—Steel Bridge.—Reported that the Georgia Coast & Piedmont Railroad will build a double-draw steel bridge over the Altamaha river at Darien to cost $100,000. L. K. Emerson, Darien, Ga., is superintendent.

Dade County, Ga.—Coal Mines.—High Carbon Coal Co., recently organized, will develop 700 acres of coal land in Dade county. The company begins business with a nominal capital stock of $1000 and privilege of increasing to $250,000. James K. Hines of Atlanta, Ga., is president; E. M. Jones of Chattanooga, Tenn., vice-president and general manager, and R. E. Watson of Atlanta, Ga., secretary; main office, Atlanta, Ga.; branch office, Room 12 News Building, Chattanooga, Tenn.

Dublin, Ga.—Steamboat Company.—Dublin Navigation Co. has been incorporated with $6000 capital stock by E. R. Orr, D. S. Brandon, O. G. Sparks, Jr., D. L. Emmerson and Izzie Bashinski to operate steamboat between Dublin and the various points up and down the Oconee river.

Fitzgerald, Ga. — Steel Tank. — Chicago Bridge and Iron Works, 105th and Throop streets, Chicago, Ill., is constructing a 100,000-gallon steel tank for the Atlanta, Birmingham & Atlantic Railway.

Gainesville, Ga.—Publishing.—J. O. Adams is reported as organizing company for the publication of a newspaper.

Macon, Ga. — Lumber Company. — McRee Lumber Co. has been incorporated with $10,000 capital stock by O. L. McRee, E. A. Hallam and R. K. Hines.

Milledgeville, Ga.—Paving and City Hall.—City will call an election to vote on $50,000 of bonds for paving business streets and erecting city hall. Address The Mayor.

Rising Fawn, Ga.—Iron Furnace.—Southern Steel Co. of Gadsden and Birmingham, Ala., has blown out for repairs to the Rising Fawn iron furnace recently purchased; annual capacity 72,000 tons; New York office, 30 Pine street.

Sandersville, Ga.—Sewerage System.—City has voted affirmatively the issuance of $30,000 of bonds for sewerage. Address The Mayor.

Savannah, Ga. — Land Improvement. — Realty Development Co. has been incorporated with $15,000 capital stock by P. W. Meldrim, M. H. Simpkins and G. Noble Jones.

Tate, Ga.—Marble Quarries.—Georgie Marble Co., operating four quarries, proposes opening another quarry and installing modern machinery.

Thomasville, Ga.—Street Paving.—Contract will be let December 19 for paving work. J. F. Pittman is Mayor.*

Thomasville, Ga.—Sawmill.—L. F. Driver and E. H. Smith have incorporated the Inwood Sawmill Co. with $10,000 capital stock.

Waynesboro, Ga.—Water-works and Electric-light Plant.—Date for opening bids for materials for water-works and electric-light plant has been changed from December 17 to December 18; J. B. McCrary & Co., Atlanta, Ga., engineers in charge. Bids will be received by chairman of Water Board.*

KENTUCKY.

Barboursville, Ky.—Coal Mines.—Cottengim & Hammons Coal Co. has been reorganized with $10,000 capital stock, and will arrange for additional coal developments near the city.

Barboursville, Ky.—Coal Company.—Brush Creek Coal Co. has been incorporated with $20,000 capital stock by William Marion Jones and Kittie Jones of Barboursville and Chas. H. Bays of Warren, Ky.

Bell County, Ky.—Coal Lands.—Reports state that the Louisville Property Co. of Louisville, Ky., controlled by the Louisville & Nashville Railroad, has acquired a large acreage of coal land in Bell county and is subleasing same to operating companies.

Bowling Green, Ky.—Gas Wells.—Bowling Green Oil & Gas Co. has been organized and will drill for gas on the Girard farm on Drake's creek, piping same to the city, a distance of five miles.

Covington, Ky. — Chartered: Glen Avon Company, with $5000 capital stock, by Carl Howard, D. E. Peppel and Della D. Davis.

Hickman, Ky.—Box Factory.—Mengel Box Co. will erect building 150x150 feet, giving 22,500 square feet additional space.

Louisville, Ky.—Foundry.—Acme Foundry Co. has been incorporated with $10,000 capital stock by C. H. Shield, J. W. Stine, Jr., and J. Robinson Bridgeford.

Louisville, Ky. — Furniture Company. — Moore-Miller Furniture Co. has been incorporated with $15,000 capital stock by W. B. Miller, L. C. Miller and S. C. Moore.

Louisville, Ky. — Construction Company. — Jefferson County Construction Co. has been incorporated with $10,000 capital stock by Charles D. Kelso, Allan F. Roe, James D. Bohon and Fred Forcht, Jr.

Madisonville, Ky.—Coal Mines.—Kentucky Midland Coal Co. has been incorporated with $1,250,000 capital stock by William J. Cox, Maurice K. Gordon, both of Madisonville, and Gustave B. Hengen of Chicago, Ill.

Middlesboro, Ky.—Iron Furnace.—Virginia Iron, Coal & Coke Co. is reported as to put in blast about December 15 its No. 2 furnace, which has been undergoing repairs; total annual capacity 110,000 tons; main office, Bristol, Tenn.

Newport, Ky. — Sewerage System. — J. B. McLane & Co. will construct sewerage system to cost $15,000. (Referred to December 6.)

Princeton, Ky.—Tobacco Plant and Salesroom.—Dark Tobacco Growers' Association is

planning the erection of a salesroom and tobacco plant, replacing plants recently burned.

Shelbyville, Ky.—Sewerage System.—A commission has been appointed with C. W. Ballard, secretary, to consider plans and specifications for constructing sewerage system, and invites those interested in devising plans for constructing a system to visit the city and surrounding county and present to the commission the most feasible plan for constructing a system adapted to the needs of the city. (Referred to last week.)*

Stanton, Ky.—Cannery.—J. C. Pattrick and associates are organizing company with $6000 capital stock to establish canning factory.

Trenton, Ky.—Heating and Lighting Plant. Incorporated: Trenton Heating & Lighting Co., with $2500 capital stock, by W. J. Dickinson, S. D. Chestnut, J. C. Mimms and Ware Bros.

Winchester, Ky.—Telephone System.—Old Kentucky Telephone & Telegraph Co. and the Central Home Telephone Co. have consolidated and will operate as the Old Kentucky Telephone & Telegraph Co. New central energy equipment for the Winchester Exchange, a lot of new cable and underground conduits will probably be installed; a two-story exchange building 30x40 feet will be erected. D. L. Pendleton is president of the company; H. W. Coleman, vice-president, and J. W. Chambers, secretary-treasurer and manager. (Referred to last week.)

LOUISIANA.

Houma, La.—Oyster Cannery.—Pelican Lake Oyster & Packing Co., incorporated with $100,000 capital stock to establish plant for canning oysters and shrimp, will handle about 1000 barrels of oysters daily. It is proposed to plant about 1000 acres in Pelican lake in oysters, placing about 80,000 oysters in beds. About 25 acres of land on one side of Bayou Terrebonne and 20 acres of land on the other side have been purchased and a canning town to be known as New Baltimore will be established. Dr. L. H. Jastremski is president and general manager. (Referred to June 7.)

Lafayette, La.—Bridge Construction.—Police Jury of Lafayette parish will ask for plans and specifications and advertise for bids for the construction of a bridge across Vermillion bayou at the Demas Broussard crossing.

Lake Charles, La.—Sawmill, Shingle Mills, etc.—Chartered: Rosenthal-Labesse Lumber Co., with $10,000 capital stock, to operate sawmills, planing mills, shingle mills, etc. Morris Rosenthal is president; A. G. Labesse, vice-president, and B. H. Jones, secretary-treasurer.

Lake End, La.—Oil Wells.—Red River Oil & Pipe Line Co. is completing arrangements for drilling for oil at Salt Springs, Red River Parish. E. P. Lee, J. B. Atkins, E. W. Jackson, Ashley Cawthon, M. W. Waters, Mrs. A. L. Chapman are mentioned as incorporators.

Monroe, La.—Lumber Plant.—It is reported that L. L. Lieber has purchased and will operate the plant of the Southern Lumber Co. It is also stated that a creosoting plant may be operated in connection.

New Orleans, La.—Land Improvement.—Yreka Realty Co. has been incorporated with Willis B. Wright, president; Clarence Brittin, vice-president, and Henry W. Robinson, secretary-treasurer.

New Orleans, La.—Lumber Company.—Chartered: Victor Lumber & Export Co., with P. M. Roby, president and secretary-treasurer, and R. U. Schmide, vice-president.

New Orleans, La.—Flasdick-Black Land & Lumber Co. has been incorporated with an authorized capital stock of $100,000. Rudolph Flasdick is president; Bryan Black, vice-president, and Edwin W. Rodd, secretary.

New Orleans, La.—Plumbing Company.—Chartered: McGilvray Plumbing Co., with William H. Douglas, president; William McGilvray, vice-president, and Harry McGeary, secretary.

New Orleans, La.—Metal-polish Factory.—E. Z. Manufacturing Co. has been incorporated with $3000 capital stock. W. R. Wales is president; Arthur J. Brown, vice-president, and L. C. Vacher, secretary-treasurer.

New Orleans, La.—Ice Plant.—Orleans Ice Manufacturing Co., reported incorporated November 15, has purchased site on which to erect plant.

Thibodaux, La.—Cannery.—Reported that a Baltimore (Md.) company has decided to remove its cannery to Thibodaux. C. P. Shaver, cashier of the Bank of Thibodaux, can probably give information.

MARYLAND.

Annapolis, Md.—Sewerage System.—Contract will be let December 20 for laying about 6000 feet of sewerage. James F. Strange is chairman of street committee.*

Baltimore, Md.—Bakery.—Plans and specifications have been completed by Simonson & Pietsch, architects, American Building, Baltimore and South streets, for addition to bakery on South Charles street for the Maryland Biscuit Co., M. J. Fitzsimmons, general manager, 516-532 South Charles street; six stories, 50x100 feet; brick with stone trimmings; fireproof construction. Eugene Springer, 424 South Charles street, will have charge of the construction of the building.

Baltimore, Md.—Vinegar Factory.—The Baltimore Manufacturing Co. has purchased lot at 415 and 417 East Monument street and will erect an addition to its vinegar factory on the site, which is 25x60 feet.

Baltimore, Md.—Engineering.—The Austin-Smith Engineering Co. has been incorporated with capital of $50,000 by Sidney B. Austin, Pikesville, Md.; Wm. H. Smith, Roland Park, Baltimore, and R. Lee Slingluff, Union Trust Building, Charles and Fayette streets, Baltimore, Md.

Baltimore, Md.—Concrete Construction.—The National Concrete Construction Co. has been incorporated with capital of $25,000 by Solomon M. Kemp, 813 North Mount street; Dwight D. Mallory, 1900 Eutaw Place, and William Montgomery, Jr.

Baltimore, Md.—Real Estate.—The Allied Realty Co. has been incorporated with capital stock of $10,000 to deal in real estate by John J. Hurst, Calvert Building; Charles W. Hurst, Calvert Building; Harry S. Will, Richard Keating, and Harry W. Adams, 1821 Aisquith street.

Baltimore, Md.—Electrical Supplies.—The Electrical Material Co., 221 North Calvert street, has called a meeting of stockholders to ratify increase of capital stock from $30,000 to $50,000.

Baltimore, Md.—Straw-hat Factory.—The A. D. Smith Sons' Company, 210-212 North Liberty street, straw-hat manufacturer, has been incorporated with capital of $25,000 by Albert D. Smith, Berlin A. Smith, De Royce E. Smith, Peter Ringsdorf and Everett Davis.

Baltimore, Md.—Sewerage Pumping Plant. The municipal Board of Awards, City Hall, has awarded contract to Bethlehem Steel Co., Bethlehem, Pa., for the construction of mechanical and other equipment for the sewerage pumping plant at its bid of $450,000. Work will be done under supervision of Sewerage Commission, Calvin W. Hendrick, chief engineer, American Building, Baltimore and South streets.

Baltimore, Md.—Racing Plant.—Wm. P. Riggs, Wm. M. Manly and Spalding L. Jenkins, building committee Maryland Jockey Club, 634 Equitable Building, Calvert and Fayette streets, have engaged L. S. Long as superintendent of construction, Raleigh Thomas as engineer and George A. Nagle, 11 East Pleasant street, as architect to prepare the necessary plans and specifications for laying out racing plant at Halethorpe (near Baltimore). Grandstand 300 feet long, clubhouse and paddock will be constructed, railroad terminals built and other facilities of modern racing plants provided.

Baltimore, Md.—Fruit Company.—The Diamond Fruit Co., 208 West Pratt street, has been incorporated with capital of $10,000 by Hugh W. Ramsay, Burns W. Michael, George R. Gorsuch, Grover P. Keller and Mabel H. Herbert.

Cambridge, Md.—Cannery.—Noah Webster will establish small cannery to be operated in conjunction with fertilizer plant of G. L. Webster & Son.*

Laurel, Md.—Land Improvement.—Laurel Real Estate Co. has been incorporated with Frank W. Awalt, president; James P. Curley, vice-president, and Herman G. Odenwald, secretary-treasurer.

Oakland, Md.—Timber Development.—Ravenscroft Lumber Co. has been incorporated with $25,000 capital stock. It has options on timber land in Maryland and West Virginia, which will be closed at once and operations begun. Dr. R. A. Ravenscroft, North and Fayette streets, Baltimore, Md., is president; W. Ravenscroft, treasurer and manager, and B. C. Feathers, secretary.

MISSISSIPPI.

Durant, Miss.—Cannery.—A company has been organized with $10,000 capital stock to establish cannery. Site has been secured and work on building will begin at once. W. C. Durham is president; E. T. Morgan, secretary.

Laurel, Miss.—Wagon Works.—B. F. Padgett Manufacturing Co., manufacturer of eight-wheel log wagons and skidders, also six-wheel float and four-wheel lumber wagons, has secured temporary quarters and will equip for a capacity of one to two wagons daily, increasing the present output of two to three wagons a week. It is also proposed to increase the capital stock. As soon as location is decided on for permanent buildings erection of same will begin. George Bacon is president of the company; C. H. Jones, vice-president; Henry Hubun, secretary-treasurer, and B. F. Padgett, general manager.

Hattiesburg, Miss.—Public Improvements.—City will issue $125,000 of bonds for municipal improvements; of this amount $66,000 will be used in the erection of City Hall, $25,000 for school building and the remainder to erect five steel bridges, extend water and sewer systems and for additional street paving. It has also been decided to widen Main street at an additional cost of $16,000. Address The Mayor.

Natchez, Miss.—Gas Plant.—City has granted a 25-year gas franchise to J. S. Chichester of Chicago, Ill.

MISSOURI.

De Soto, Mo.—Gas Plant.—City will vote December 22 on the issuance of franchise to Charles A. Magee, 716 Locust street, St. Louis, Mo., to establish gas plant, referred to November 1.

Excelsior Springs, Mo.—Land Improvement. Incorporated: Elms Realty Co. with $50,000 capital stock by I. J. Ringolsky, Edwin J. Booker, M. F. Ringolsky and others.

Joplin, Mo.—Mining.—Webb City Mining & Leasing Co. has been incorporated with $200,000 capital stock by S. W. Templeton, A. W. Dexter, P. C. Campbell and others.

Kansas City, Mo.—Gas Plant.—Chartered: Kansas City Gas Co. with $2000 capital stock by George S. Barrows, Caleb S. Monroe, A. A. Whiting and others.

Poplar Bluff, Mo.—Light and Power Plant. Chartered: Poplar Bluff Light & Power Co. with $100,000 capital stock by David P. Bacon, William H. Wilsey and William B. Hayes.

Rich Hill, Mo.—Coal Mining.—Reported that the Missouri Pacific Coal Co. has purchased the New Home mine and will arrange at once to sink a new shaft for the further development of the property.

Sedalia, Mo.—Woolen Mill.—Sedalia Woolen Mills Co., mentioned last week, will increase capital stock from $30,000 to $60,000 and enlarge its present one-set plant to a two-set plant. About $10,000 will be the cost of additional buildings to be erected. F. F. Hugelman is in charge of the betterments, purchasing of machinery, etc.

St. Joseph, Md.—Shoe Factory.—Ralph E. Costigan, Maxwell G. Davis, William P. McDonald and others have incorporated the Noyes-Norman Shoe Co. with $250,000 capital stock.

St. Louis, Mo.—Land Improvement.—Colony Realty & Investment Co. has been incorporated with $5000 capital stock by Claude H. Edwards, Leo H. Allan and Thomas H. McKittrick.

St. Louis, Mo.—Iron Foundry.—Chartered: Kaysing Iron & Foundry Co. with $10,000 capital stock by William G. Kaysing, C. E. Collett, Edward De Vries, John Moninger and George Rothweiler.

St. Louis, Mo.—Brick Works.—Hydraulic Press Brick Co. has increased capital stock from $3,500,000 to $10,000,000.

St. Louis, Mo.—Land Improvement.—Ramming Real Estate Co. has been incorporated with $50,000 capital stock by Anna K. Ramming, Wm. A. Ramming, Dorothea Tortman and others.

St. Louis, Mo.—Bed Factory.—Westlake Construction Co. is architect and engineer in charge of the construction of factory building mentioned December 6 to be erected by the St. Louis Bed & Manufacturing Co.; one story, 100x540 feet; brick with saw-tooth roof. About $75,000 will be invested. Brass beds, iron beds and springs are manufactured; all contracts let.

St. Louis, Mo.—Coal Mines.—Pavey Coal Co. has been incorporated with $15,000 capital stock by Edmund F. Wickham, Reuben W. Pavey and Frederick C. Pavey.

St. Louis, Mo.—Warehousing Company.—Incorporated: Ashley Warehouse Co., with $10,000 capital stock, by Ralph Pierson, Geo. Johnson, Forbes Johnson and others.

St. Louis, Mo.—Land Improvement.—William J. Hamilton, S. F. Behen and H. G. Althen have incorporated the Martha Washington Real Estate Co. with $2000 capital stock.

NORTH CAROLINA.

Andrews, N. C.—Water-works and Sewerage.—Town has voted affirmatively the proposed $12,000 water and sewer bond issues. Address Town Clerk.

Asheville, N. C.—Land Improvement.—H. F. Grant Realty Co. has been incorporated with $50,000 authorized capital stock by F. Dogers Grant, J. W. Branson, Jr., and H. M. Moody.

Asheville, N. C.—Garbage Crematory.—City has voted affirmatively the $10,000 bond issue previously mentioned for the erection of a garbage crematory. A. S. Barnard is Mayor.

Charlotte, N. C.—Cotton-waste Mill.—Jasper Miller & Son have completed the installation of carding plant in connection with their waste factory.

Clinton, N. C.—Electric-light Plant.—Clinton Light & Power Co., reported incorporated last week with $200,000 capital stock, will establish electric-light plant with a capacity of 1000 incandescents and 25 arcs. A sheet-iron building 40x60 feet will be erected; about $6500 to be expended in building and equipment; Stephen S. Grady, architect and engineer in charge. Henry A. Grady is vice-president and general manager. All equipment has been purchased.

Concord, N. C.—Cotton Mill.—Incorporated: Magnolia Mills Co., capital stock $25,000, by J. M. Odell and W. R. Odell; purpose to manufacture cotton goods.

Cornelius, N. C.—Upholstering.—J. L. Royal of High Point, N. C., mentioned last week as to establish upholstering plant, will operate as the Royal Lounge Co. It is proposed to buy the frames and upholster and finish same.

Fairfield, N. C.—Lumber Company.—Hyde-Tyrrell Lumber Co. has been incorporated with an authorized capital stock of $25,000 by F. F. Spencer, P. H. Simmons and V. G. Davis.

Hendersonville, N. C.—Cotton Mill.—Reports state that S. B. Tanner of the Henrietta Mills, Henrietta, N. C., will build cotton mill at Hendersonville, where he is said to have purchased a water-power property for development, to furnish power required.

High Point, N. C.—Chair Factory.—Ford & Johnson Company of Chicago, Ill.; Atlanta, Ga., and other points, has purchased a controlling interest in the Lindsay Chair Co. It is proposed to double the capacity of the plant and operate as the Ford & Johnson Company. The company is capitalized at $2,500,000.

Kings Mountain, N. C.—Cotton Mill.—It is reported that J. A. Glenn and associates will build a cotton mill.

Rougemont, N. C.—Knitting Mill.—W. A. Carver, H. L. Carver and J. K. McCutching propose forming company to establish a knitting mill.

Waynesville, N. C.—Cotton Mill.—J. P. Wilson is reported as planning to build a cotton mill.

West Raleigh, N. C.—Heating Plant.—State Board of Agriculture has received from the board of visitors of the Agricultural and Mechanical College a recommendation to petition the Legislature for an appropriation of $50,000 to install a central power, light and heating plant at the college, replacing the five or six plants now in separate buildings. W. A. Graham of Machpelah, N. C., was elected chairman pro tem. of the board.

SOUTH CAROLINA.

Bishopville, S. C.—Electric-light and Power Plant.—City has purchased the plant of the Bishopville Light & Power Co. at $20,000.

Blacksburg, S. C.—Water-power Electrical Plants.—Southern Power Co. of Charlotte, N. C., has awarded contract to the Westinghouse Electric & Manufacturing Co. of Pittsburg, Pa., for 12 5000-horse-power generators, with transformers, switchboards and exciters. This contract is reported as amounting to about $400,000. It calls for the machinery for equipping the two new developments of the Southern Power Co. at Ninety-Nine Islands on the Broad river near Blacksburg and at Rocky Creek near Great Falls on the Catawba river. The Manufacturers' Record of November 8 stated that the company had plans for developing these two properties, 16,000 horse-power reported then as to be produced on the Broad river and 30,000 horse-power on the Catawba. It is stated contract for hydraulic machinery has not yet been awarded.

Camden, S. C.—Gold, Tin and Alumnoid Mines.—Reported that Dr. George F. Lee contemplates organizing company to mine gold, tin and alumnoid in Kershaw and Lancaster counties.

Cayce, S. C.—Repair Shops, Roundhouse, etc.—Reported that the Seaboard Air Line has purchased 29 acres of land at Cayce on which to locate shops, roundhouse and freight yards. W. L. Seddon, Portsmouth, Va., is chief engineer.

Charleston, S. C.—Land Improvement.—T. T. Hyde and George H. Moffet have incorpo-

rated the Domestic Improvement Co. with $30,000 capital stock.

Hartsville, S. C.—Cotton Mill.—It is reported that the Hartsville Cotton Mills contemplates enlargements to its plant; present equipment 29,000 spindles and 700 looms.

Irmo, S. C.—Cotton Gin.—H. E. McEntire is considering the erection of cotton gin, replacing the plant of H. A. & D. W. Lorick, recently reported burned.

Norway, S. C. — Cottonseed-oil Mill and Cotton Gin.—A company has been organized with B. F. Adden, president; B. B. Williams, vice-president; J. H. Bonnett, treasurer, and J. A. Weathersbee, secretary, to establish cottonseed-oil mill and cotton gin; capital stock $20,000.

Pelion, S. C.—Drug Company.—Pelion Drug Co. has been incorporated with $2000 capital stock by D. R. Neece and others.

Saluda, S. C.—Saw and Planing Mill.—J. R. Crawford will rebuild saw and planing mill reported burned December 6. A shed 40x60 feet will be erected.*

Seneca, S. C.—Publishing.—Wm. E. Neilson, W. A. Gardner, W. F. Strickland and L. A. Edwards are organizing the Seneca Publishing Co.

Spartanburg, S. C.—Land Improvement.—Home Real Estate Co. has been incorporated with $10,000 capital stock. J. P. Stephens is president.

Summerville, S. C.—Dairy Farm.—Chartered: Marymede Dairy Farm, with $8000 capital stock by J. T. E. Thornhill and T. W. Salisbury.

Sumter, S. C.—Flour Mill.—John L. Brunson has begun the erection of proposed 50-barrel flour mill.

TENNESSEE.

Centerville, Tenn. — Phosphate Mines.—A. D. Adair and McCarty Bros., Atlanta, Ga., have purchased 150 acres of phosphate land in Hickman county, which, in addition to the 250 acres already owned by the firm, gives a total of 400 acres. It is proposed to begin mining in 1907, but plans have not yet been perfected. The company does not propose mining over 9000 tons annually for their own use.

Chattanooga, Tenn. — Steam Laundry. — Adams & Schneider have contract to erect laundry building for the Chattanooga Steam Laundry Co., for which Bearden & Foreman were mentioned November 8 as preparing plans; four stories, 75x124 feet; cost $20,000.

Chattanooga, Tenn. — Trousers Factory. — Reported that the Cleveland (Tenn.) Woolen Mills will establish trousers factory at 300-302 Carter street.

Huntingdon, Tenn.—Cannery.—Huntingdon Canning Co. is being organized with $9000 capital stock to establish canning factory referred to last week.

Maryville, Tenn.—Knitting Mill.—Reported that the Maryville Knitting Mills has been organized by J. H. Price, R. H. Hanna and M. R. Deabills, and ordered machinery for plant.

Memphis, Tenn.—Cotton Gin, etc.—Reported that the Memphis Ginning & Cotton Huller Co. will rebuild plant recently burned, expending about $30,000. James H. Pope is president and treasurer. It is stated that the new building will be of wood and steel construction, two stories high.

Memphis, Tenn.—Dye Works.—McKnight & Barker have contract to erect two-story stone and brick building for J. M. Toohey to cost $16,000; building will be occupied by Kraus Bros.' Dye Works.

Memphis, Tenn.—Screen Factory.—Bunker Screen Manufacturing Co. has been incorporated with $15,000 capital stock by W. C. Pryor, Lew Tisdale, W. D. Hood, W. F. Johnston and A. O. Battle to manufacture screen doors and windows and door and window frames and fixtures. The plant of a former company has been purchased and additional machinery will be installed, increasing the capacity.

Nashville, Tenn.—Office Supplies.—Taylor Office Supply Co. has been incorporated with $10,000 capital stock by W. V. Taylor, Leo Goodman, J. E. Lipsey, M. O. Rees and C. E. Bertram, Jr.

Petros, Tenn.—Coal Mines.—Reported that O. M. Bowling of the H. B. Bowling Coal Co., Coalfield, Tenn., has purchased the coal properties of the Little Brushy Mountain Coal Co. near Petros, which will be further developed; consideration mentioned as $30,000.

South Pittsburg, Tenn.—Foundry.—H. Wetter Manufacturing Co., manufacturers of stoves and ranges, will erect addition 60x150 feet to foundry; about $5000 will be expended. Wm. Palmer is superintendent of construction. Offices at South Pittsburg and Memphis, Tenn. (Referred to December 6.)

Westbourne, Tenn.—Coal Mines.—Reported that the R. O. Campbell Coal Co. has purchased the Westbourne mines at $20,000.

TEXAS.

Austin, Texas — Brewery. — Wm. J. Lemp Brewing Co. St. Louis, Mo., does not contemplate building brewery as mentioned November 29.

Dallas, Texas—Spring-bed Factory.—Olive & Myers Manufacturing Co., manufacturers of spring beds and wholesale furniture dealers, has purchased land adjoining plant to be used for the future enlargement of factory.

Cranfills Gap, Texas—Cotton Gin.—B. W. Ammons, W. T. Ferguson and M. T. Sorenson have incorporated the Farmers' Gin Co. with $6500 capital stock.

Dallas, Texas—Door and Screen Factory.—Chartered: Southern Door & Screen Co. with $5000 capital stock by Y. E. Douglass, L. B. Westerman and G. C. Douglass.

Dallas, Texas—Lumber Company.—R. B. Godley Lumber Co. has increased capital stock from $25,000 to $50,000.

Dallas, Texas—Metal Works.—Atlas Metal Works has purchased site on which to erect a two-story brick building 50x100 feet, and will consolidate under the one roof the two plants operated by the company. (See Building Note under Dallas, Texas.)

Dayton, Texas—Oil Wells.—E. Black and associates of Beaumont, Texas, controlling 2200 acres of oil land near Dayton, will organize company for its development.

Denton, Texas—Road Improvements.—Denton county is considering the issuance of $200,000 of bonds for improving roads. Address County Clerk.

El Paso, Texas—Grain Company.—El Paso Grain Co. has been incorporated with $6000 capital stock by J. W. Beckwith of El Paso, J. E. Ervine and J. E. Bishop of Houston, Texas.

Fort Worth, Texas—Wire-fence Factory.—Adrian (Mich.) Wire Fence Co., it is reported, is investigating with a view to locating plant.

Fort Worth, Texas—Glass Factory.—Dave Wolverton, Albany, Ind., has contract at $28,500 for constructing plant for the Fort Worth Glass & Sand Co., referred to December 6.

Houston, Texas—Lumber Company.—Chartered: Pegoda Lumber Co., with $20,000 capital stock, by H. Pegoda, E. K. Dillingham and J. L. Tyron.

Junction, Texas. — Chartered: Schreiner-Hodges Company, with $50,000 capital stock, by Charles Schreiner, A. C. Schreiner and J. N. Hodges.

Navasota, Texas — Telephone System. — Washington-Navasota Telephone Co. has been incorporated by H. C. Lehde, Gus Stulz, J. W. Brosig and others.

Orange, Texas—Dry-kiln, etc.—Miller-Link Lumber Co. has purchased additional property for the extension of lumber yard and the erection of a modern dry-shed with a capacity of 2,000,000 feet.

Refugio, Texas—Land Improvement.—Bonnie View Land Co. has been incorporated with W. C. Johnson of Danville, Ill., president, and A. H. Danforth of San Antonio, Texas, secretary. About 35,000 acres of land in Refugio county is owned by the company, a portion of which will be developed as town site; main office, Angelus Hotel Building, San Antonio, Texas.*

Rhome, Texas—Milling Company.—Rhome Milling Co. has been incorporated with $50,000 capital stock.

Santa Maria, Texas—Irrigation Company.—Santa Maria Irrigation Co. has increased capital stock from $10,000 to $20,000.

Stamford, Texas — Sewerage System. — A company is being organized by Postmaster Leavitt with $50,000 capital stock to construct sewerage system.

VIRGINIA.

Berkley, Va.—Marine Railways. — Norfolk Marine Railway Co. is reported to expend several thousand dollars in improvements to plants.

Bunker Hill, Va. — Limekilns and Limestone Lands.—It is reported J. D. Baker of York, Pa., has purchased the limekilns of S. Cline in addition to several tracts of limestone lands, and, it is stated, additional kilns will be erected.

Emporia, Va.—Lumber Company.—Meherrin Lumber Co. has been incorporated with $50,000 capital stock. E. L. Wood is president; R. W. Jordan, secretary-treasurer.

Lynchburg, Va. — Candy Factory.—Harris, Woodson & Co. are having plans prepared for factory building; five stories; mill construction.

Newcastle, Va.—Iron Mines.—James Laing, Sr., and associates of Lewisburg, W. Va., reported last week as having purchased 60,000 acres of ore lands in Craig and Giles counties, have made no plans as yet for its development.

Newport News, Va.—Shipyards.—Reported that the Newport News Shipbuilding & Drydock Co. will make improvements at plant, building new shops, etc.

Norfolk, Va. — Land Improvement. — Chartered: Freemason Realty Corporation with J. H. Cofer, president; T. S. Southgate, vice-president, and W. T. Ham, secretary-treasurer.

Norfolk, Va.—Viaducts.—Plans have been prepared by W. F. Brooke, City Engineer, for two viaduct bridges crossing Newton's creek—one 60 feet wide on the main thoroughfare and a smaller one for the branch roadway.

Norfolk, Va.—Brick Works.—Eureka Brick Co., reported incorporated December 6, will have a daily capacity of 25,000 to 30,000 bricks. A building 30x60 feet will be erected. About $10,000 will be expended in building and equipment; P. O. Box 185.

Norfolk, Va.—Fish and Oyster Company.—T. C. Heath Fish & Oyster Co. has been incorporated with $10,000 capital stock. Simon Salomonsky is president; H. V. Kellam, vice-president and general manager.

Norfolk, Va. — Novelty Works.—George F. Lucas Manufacturing Co. has been incorporated with $25,000 capital stock. James T. Hayward of Norfolk is president; George F. Lucas of Portland, Ore., treasurer.

Norfolk, Va. — Land Improvement. — Main Line Realty Corporation has been incorporated with $100,000 capital stock. E. Tatterson is vice-president and general manager.

Norfolk, Va.—Printery.—Chartered: Pocahontas Press, with A. W. Conwat, president; P. N. Grant, vice-president, and E. P. Huffman, secretary-treasurer.

Norfolk, Va. — Printing Presses. — Rotary Job Press Corporation has been chartered with J. E. Burke, president; E. L. Graves, secretary-treasurer; capital stock $25,000.

Norfolk, Va.—Concrete-block Factory.—Norfolk Concrete Building Block & Construction Co. has been incorporated with $15,000 capital stock to manufacture concrete blocks with a special machine making two blocks in one minute and each pressed automatically under a pressure of 100 tons; incorporators, William Folk, Robert L. McKenty, Fred Folk, O. A. Robertson and Louis Folk.

Norfolk, Va.—Repair Shops.—Reported that the Old Dominion Steamship Co. will enlarge shops; general offices, 81-85 Beach street, New York.

Osaka, Va.—Timber Development.—Reported that Horton & Wells have purchased 2000 acres of timber land in Wise county for development and will organize the Horton-Wells Lumber Co. with $20,000 capital stock.

Pulaski, Va.—Ice Plant.—K. E. Harman, J. A. Van Mater, C. L. Johnson, H. W. Steger, R. L. Gardner, Jesse N. Bosang, J. W. Miller, W. C. Downs and associates will establish ice plant.

Roanoke, Va.—Novelty Works.—McConnell Manufacturing Co. has been incorporated with $3500 capital stock. E. R. Woodward is president; R. R. Fairfax, vice-president, and Mercer Hartman, secretary-treasurer.

Rosslyn, Va.—Ice and Cold-storage Plant.—Anacostia Ice & Cold Storage Co. has been incorporated with $50,000 capital stock to establish ice and cold-storage plant. G. W. Jordan is president; Albert Lindstrum, secretary; E. J. Daily, treasurer, and C. W. Frick, general manager.

Saltville, Va. — Gypsum Plant. — Reported that the Southern Gypsum Co. has purchased mineral lands near Saltville and will establish plant.

Suffolk, Va.—Gas Plant.—Suffolk Gas Co., reported incorporated November 22, will furnish fuel and illuminating gas. A building 60x84 feet will be erected and $120,000 expended in building and equipment. W. H. Bonduran, 426 Walnut street, Philadelphia, Pa., is engineer in charge and J. A. Barham general manager. No equipment needed.

Tye River, Va. — Soapstone Products. — Piedmont Soapstone Co. has been incorporated with $1,000,000 capital stock to manufacture all kinds of products from soapstone. It will erect necessary buildings, dwellings, mills, etc., at a total cost of $100,000, and the property should be equipepd for the delivery of soapstone by January 1. H. S. Kimball is general manager. Coolidge & Hight, 50 Congress street, Boston, Mass., are interested.

WEST VIRGINIA.

Bluefield, W. Va. — Water-works. — W. D. Roberts of Graham, Va., and others contemplate installing water-works of 75,000 gallons daily capacity, and have applied for franchise.*

Clarksburg, W. Va.—Water-works.—Clarksburg Board of Trade, Charles E. Lamberd, secretary, is negotiating with a number of hydraulic engineers with a view to having them prepare surveys and a list of what will be needed to equip water plant suitable for a city of 50,000 people. (Referred to December 6.)

Fairmont, W. Va.—Coal Mines and Coke Ovens.—K. Clarence Hall, H. J. McElfresh, J. F. Straight, H. J. Ross and H. C. Sample have incorporated the Marsh Coal & Coke Co. with $200,000 capital stock.

Fairmont, W. Va.—Coal Mines and Coke Ovens.—Connellsville-Fairmont Coal & Coke Co. has been incorporated with $100,000 capital stock by John C. Shaw, H. A. McKinnie, E. M. Rensick, W. K. Burke and E. O. Rucks, all of Uniontown, Pa.; main office, Uniontown, Pa.

Fairmont, W. Va.—Glass Factory.—Fairmont Bottle Co. has been organized with $41,000 capital stock to take over and operate Johns Bros.' glass factory. S. L. Watson is president; J. M. Hartley, vice-president, and J. Heintaelman, secretary-treasurer and general manager.

Hinton, W. Va. — Electric-light and Ice Plants.—Consumers' Light & Ice Co. has been incorporated with $75,000 capital stock to establish duplicate electric plants of 200 kilowatts each and 30-ton ice plant. A one-story building 65x140 feet will be erected. About $60,000 will be invested. Wm. L. Fredeking is president; O. O. Cooper, vice-president; J. J. Duffy, engineer in charge.*

Lewisburg, W. Va.—Flour Mill and Electric-light Plant.—The plant of the Lewisburg Milling & Electric Light Co. has been purchased at $25,750 by Lewis S. Price, James Laing, Richard Jasper, John A. Preston, James M. Preston and Fred Snyder. Messrs. Price, Laing, Jasper, Preston and Snyder were mentioned last week as organizing the Blue Gap Milling Co. with $50,000 capital stock.

Martinsburg, W. Va. — Lime, Stone and Portland-cement Plant.—American Lime & Stone Co. has about completed the purchase of 460 acres of limestone property in Berkeley county at about $125,000, and arrangements will be made for development. Contract has been let for a crusher plant to be installed at a cost of $35,000, to have a capacity of 100 cars of furnace flux or railroad ballast daily. Later the company proposes to install plants for the manufacture of lime and high-grade Portland cement, for both of which products the limestone is adapted. R. S. Pope, Edw. Nelly, C. D. Bumgarner, B. E. Hiatt, C. D. Elliott, Jas. S. McCluer, Lyle Jones, H. M. O'Bleness, C. A. Swearingen and H. B. McKinley, all of Parkersburg, W. Va., compose the board of directors.

Olmsted, W. Va.—Coal Tipple.—Richards Construction Co., Clarksburg, W. Va., has contract to construct coal tipple for the Dixon-Pocahontas Fuel Co. Company was reported last week as building a concrete and galvanized-iron power-house. J. P. Davis is engineer in charge of construction.

Parkersburg, W. Va. — Concrete-block Factory.—Citizens' Concrete Co. has been organized by B. D. Spilman, Philip D. Neal, C. H. Shattuck, John J. Kennedy and Henry Daly.

Parsons, W. Va.—Water-works.—Elk Lick Water Co., 622 Court street, Reading, Pa., has franchise to install gravity system of water-works.

Quinnimont, W. Va.—Ice Plant.—Union Ice Co. has increased capital stock from $25,000 to $100,000. It is proposed to enlarge plant and increase the capacity.

Raleigh County, W. Va.—Coal Mines.—Wyoming Pocahontas Coal & Coke Co., reported incorporated December 6 with $2,000,000 capital stock, will take over 27,000 acres of coal lands in Raleigh and Wyoming counties recently acquired by W. M. Osborn and associates of Cleveland, Ohio. It is proposed to thoroughly develop the property as to the different measures of coal, and if the developments warrant, to operate the property either directly or by lease to other operators; operations will not be fully under way for some years. (Cleveland, Ohio, capitalists were reported October 25 as having purchased about 30,000 acres of coal land in these counties and to organize company for development. Messrs. Osborn and J. R. Nutt were mentioned as managers.)

Webster Springs, W. Va.—Land Improvement.—Webster Springs Development Co. has been incorporated with $10,000 capital stock by C. P. Door, P. M. McElwain, J. S. Cogar, T. M. Daly and Harry E. Gump to establish resort, bottle mineral water, etc.

Wheeling, W. Va. — Storage Yards, etc. — American Sheet Steel Co. is making improvements at the Aetna-Standard plant by the establishment of a new and modernly-equipped yard for the storage of sheet bars and slabs. A shed will be erected in the yards and a large electric crane installed for unloading the bars and slabs from the cars.

Wheeling, W. Va. — Water-works. — Mozart Water Co., care of Hesse & Kirchner, Inc., 1428 Market street, is installing water system in new residence addition to city, which is being laid off; to have a capacity of 15 to 25 gallons per minute and cost $2500.*

INDIAN TERRITORY.

Chickasha, I. T.—Gas-pipe Line.—S. J. Lea and associates are considering a plan to pipe gas from the Gotebo gasfields to Chickasha, a distance of 60 miles.

Durant, I. T.—Water-works and Sewerage. City Council will receive bids December 18 for a sewerage system. A $35,000 bond issue has been made for extending water-works and constructing sewerage system. Address The Mayor.*

Indian Territory — Cement Plant. — Reported that Haebler & Co., 79 Wall street, New York, are considering locations in Indian Territory for the erection of cement plant. As soon as site is secured, an engineer will be selected who will arrange the details.

Tulsa, I. T.—Cannery.—Reported that J. H. Harris of Kansas City, Mo., contemplates establishing cannery.

Tulsa, I. T.—Street Paving.—City will let contract December 25 for constructing 21 city blocks, or about 8400 linear feet, of street paving, to be some form of brick paving; W. D. Abbott, City Recorder.*

OKLAHOMA TERRITORY.

Aline, O. T.—Oil, Gas and Coal.—E. R. Clark, E. T. Hollingsworth and J. F. Rush have incorporated the Aline Oil, Gas & Coal Co. with $500,000 capital stock.

Ringwood, O. T.—Development Company.—D. T. Aiger, W. H. Ogle and J. W. Courtney have incorporated the Ringwood Development Co. with $5000 capital stock.

BURNED.

Advance, N. C.—Southern Railway Co.'s freight depot. D. W. Lum, Washington, D. C., is chief engineer.

Ardmore, I. T.—Ardmore Oil & Mill Co.'s cotton gin; loss $5000.

Brookhaven, Miss.—L. R. Jones' cotton gin; loss $2000.

Dawson, Texas.—J. H. McCullough's cotton gin.

Drexel, N. C.—Drexel Furniture Co.'s plant; loss $100,000.

Ellisville, Miss.—Lowery Lumber Co.'s dry-kilns, supply-house, feedhouse and blacksmith shop; loss $7000.

Follansbee, W. Va.—Recent reports of fire at the plant of the Follansbee Bros. Company were not correct. There has been no fire at the Follansbee works, and same is now in full operation.

Galveston, Texas. — Beach Skating Rink, owned by the Galveston Roller Rink Co., J. W. Boynton, president; loss $7500.

Grove City, Fla.—Hotel Tarpon; loss $20,000.

Jackson, Miss. — Southern Lumber Co.'s plant; loss $100,000.

Lewisville, Ark.—M. D. Lester's barn; loss $5000.

Llano, Texas. — McMurray Lumber Co.'s plant; loss $8000.

New Orleans, La.—Reilly & Taylor's coffee-roasting plant at 415 South Peters street; damaged $25,000.

Prescott, Ark.—McDaniel Hardware Co.'s building; loss $25,000.

Surry, Va.—Surry County Courthouse; loss $7000. Address County Judge.

Wadley, Ga.—George Brinson's cotton gin.

Washington, Ga.—Forrest Smith's cotton gin.

A W. K. Palmer Contract.

The W. K. Palmer Company, Dwight Building, Kansas City, Mo., whose organization was recently referred to, has just completed the surveys, plans, specifications and final reports on the Memphis, Covington and Northern Railway, an electric road running from Memphis, Tenn., to Covington, Tenn., a distance of 39 miles. This one road is merely the beginning of a system of interurban lines in and around the city of Memphis. Similar work has been done by the Palmer forces for the Jonesboro & Nettleton Interurban Railway, connecting the two cities mentioned in the State of Arkansas.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Aiken, S. C.—Building.—C. K. Henderson & Son have purchased site on which to erect building.

Annapolis, Md.—Laundries.—Bids will be opened December 19 at headquarters United States Marine Corps, Quartermaster's office, Washington, D. C., to erect and equip two laundries—one at Annapolis, Md., and one at navy-yard, League Island, Pa. Proposal blanks and other information can be obtained on application; usual rights reserved; F. L. Dent, Colonel, Q. M.

Asheville, N. C.—Steel Shed.—Reported that the Southern Railway Co. is having plans prepared for a steel shed over its tracks. D. W. Lum, Washington, D. C., is chief engineer.

Athens, Ala.—School Building.—J. R. Rainey has contract to rebuild State Agricultural School, mentioned last week; two stories, 80x40 feet; brick; ordinary construction; electric lights; cost $4500.

Atlanta, Ga. — Labor Temple. — Atlanta Labor Temple Co. has been incorporated with $25,000 capital stock by Charles W. Bernhardt, J. B. Hewitt and others to erect temple referred to November 15.

Austin, Texas—Hotel.—Chartered: Driskill Hotel Co., with $200,000 capital stock, by W. B. Chew, J. M. Dorrance, Jesse H. Jones, Hyman Levy of Houston, Texas; Dr. E. P. Wilmot of Austin, Daniel Ripley of Galveston, Texas, and Harry L. Lowenberg of Norfolk, Va. The Driskill Hotel has been purchased and a two-story addition will be erected. A steam laundry will also be installed.

Baltimore, Md.—Warehouse.—Jacob Amolsky, 201 North Gay street, has purchased the lots at 201 and 203 North Gay street and will erect four-story brick warehouse on the site, which is 32x60 feet.

Baltimore, Md.—Dwellings.—Wm. M. Montgomery has awarded contract to John T. West, 407 Hoffman Building, 11 East Lexington street, for the construction of 13 two-story brick dwellings at Waverly to cost about $12,000; Clarence E. Anderson, architect, Law Building, 225 Courtland street.

Baltiomre, Md.—Church.—James, Cardinal Gibbons, Archbishop, 408 North Charles street, has purchased lot on Park Heights avenue and will erect church building on the site, which is 123x210 feet.

Baltimore, Md.—Dwellings.—The Concrete Development Co. will erect 20 two-story reinforced-concrete dwellings on Franklin between 1st and 2d streets to cost about $30,000; Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Dwellings.—Frank H. Callaway, builder, Forest Park, will erect 20 three-story frame dwellings at West Forest Park. Electric wiring and fixtures, sanitary plumbing and heating systems will be installed; cost about $80,000.

Baltimore, Md. — Warehouse. — Alexander Yearly & Son, Builders' Exchange Building, 2 East Lexington street, as agents, will erect warehouse at 111 South Calvert street; four stories, 33x60 feet; brick with stone trimmings. Henry S. Rippel, 7 Clay street, and George Bunnecke & Sons, 305 St. Paul street, are estimating on construction; J. Appleton Wilson, architect, Law Building, 225 Courtland street.

Baltimore, Md.—Warehouse.—M. J. Swift & Co., 411 Young and 228 Light street, will erect three-story brick warehouse on Young street, near Trompson street, to cost about $8000; Clarence E. Anderson, architect, Law Building, 225 Courtland street.

Baltimore, Md.—Hospital.—The municipal Board of Awards has awarded contract to the Atlas Construction Co., Continental Building, Baltimore and Calvert streets, for the construction of hospital building for infectious diseases at its bid of $19,000; Simonson & Pietsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Dwellings.—Edward J. Gallagher, builder, 2808 Fairmount avenue, will erect 10 two-story brick dwellings, with electric lights and steam heating system, on 27th street, between Maryland avenue and Oak street, to cost about $20,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Union Station.—It is reported that tentative plans have been prepared for new union station to be erected by the Pennsylvania Railroad Co. C. A. Shand, chief engineer, Philadelphia, Pa., will have charge of the work, and as soon as the plans are completed will take bids on construction.

Baltimore, Md. — Warehouse. — William M. Plant, builder, 3118 East Baltimore street, will erect four-story brick warehouse 18x97 feet at 610 East Lombard street.

Baltimore, Md. — Car Barn. — Referring to car barn to be erected at North avenue and Gay street by the United Railways & Electric Co., William A. House, general manager, Continental Building, Baltimore and Calvert streets, the following contractors are estimating on construction: Brady & Watters, 532 St. Paul street; Morrow Bros., 216 West Saratoga street; Henry S. Rippel, 7 Clay street; John Hiltz & Son, 3 Clay street; John Cowan, 106 West Madison street; E. D. Preston, Gunther Building, St. Paul and Fayette streets; M. C. Davis, 5 Hopkins place; Henry Smith & Sons Company, 116 South Regester street; Charles McCaul Company, American Building; George A. Fuller Company, American Building; J. H. Miller, 110 Dover street; John Waters, 23 East Centre street; Engineering-Contracting Company, 309 N. Calvert street; Noel Construction Co., Calvert and German streets; Baltimore Ferro-Concrete Co., Glen Building, St. Paul, near Fayette street; Armored Concrete Construction Co., 1210 Block street; Cramp & Co., Philadelphia, Pa., and A. B. Stannard, New York; one-story, 124x356 feet; reinforced concrete construction; slag roof; galvanized-iron cornice and skylights; metal frames and sashes; metal lockers; sprinkler system; steel rolling doors; fire doors; sanitary plumbing; electric wiring and fixtures; steam-heating system; Simonson & Pietsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Warehouse.—Charles Vincenti, 312 Light street, has commissioned Charles E. Cassell & Son, architects, Law Building, 225 Courtland street, to prepare plans and specifications for warehouse to be erected at southwest corner Pratt street and Calhoun alley, which will be widened into Light street.

Baltimore, Md.—Warehouse.—Lewis Baer, 206 Light street, has commissioned Charles E. Cassell & Son, architects, Law Building, 225 Courtland street, to prepare plans and specifications for warehouse to be erected on Calhoun alley, which will be widened to Light street.

Baltimore, Md.—Warehouse.—Lewis Baer, 206 Light street, has commissioned Charles E. Cassell & Son, architects, Law Building, 225 Courtland street, to prepare plans and specifications for three or four-story brick warehouse to be erected at corner Howard and Little Montgomery streets.

Barnesville, Ga.—Depot.—Reported that the Central of Georgia Railway is considering the erection of passenger and freight depot. C. K. Lawrence, Savannah, Ga., is chief engineer.

Birmingham, Ala.—Fraternal Hall Association.—The special committee appointed by the Fraternal Hall Association to consider plans for the erection of building has recommended that a committee be appointed to have plans prepared by Wheelock & Joy for a three-story building to cost $35,000.

Brownwood, Texas—Church.—Jos. Kreschki has contract to erect edifice for the Catholic Congregation, Father Cusick, pastor; 60x30 feet; cement-block walls and wood floors; electric lights; cost $2600.

Brunswick, Ga.—Dwelling.—J. J. Lissner has let contract to C. Conselman for erection of residence; pressed brick with terra-cotta trimmings; cost $15,000.

Carlisle, Ark. — Bank Building. — Bank of Carlisle, organized with G. C. Smith, president, will erect a brick or stone building.

Charlotte, N. C. — Auditorium. — Charlotte Auditorium Co. is completing arrangements for the erection of proposed auditorium to cost not less than $50,000.

Charlotte, N. C.—Office Building.—Charlotte Realty Co. will not consider plans for probably six months for office building mentioned December 6 to be erected on site purchased; to be 10 or 12 stories, 66x99 feet; fireproof; heating plant, lighting fixtures and elevators will be installed; estimated cost $200,000.

Chattanooga, Tenn. — Dwelling. — Charles and John Karsten have secured permit for the erection of proposed $5000 brick residence.

Chattanooga, Tenn. — Hotel. — Joe Mandre has purchased site on which he proposes to erect a five-story hotel.

Chattanooga, Tenn.—Apartment-house.—E. L. Hudnall has contract to erect apartment-house for B. L. Glenn; brick; contain 20 rooms and cost $5000.

Chester, W. Va.—Hotel and Sanitarium.—Reported that Thomas Taggart of Indianapolis, Ind., proposes to erect a hotel and sanitarium at Mineral Springs, near Chester.

Covington, Miss. — Jail Building. — Pauly Jail Building Co., St. Louis, Mo., has contract at $8150 for the erection of jail building, mentioned November 15, to be built by Covington county.

Crowley, La.—Building.—Louis Malkus of Shreveport, La., is lowest bidder at $13,880 and has been awarded contract for the erection of Odd Fellows' Home, mentioned November 29.

Dallas, Texas. — Office Building. — Atlas Metal Works will erect office building on a portion of site recently purchased. (See construction item under Dallas, Texas.)

Dallas, Texas—Hospital.—C. W. Bulger is preparing plans for two extra wings to the Baptist Sanitarium; cost $150,000 each. It is proposed to provide each bed in the sanitarium with telephones for outside use; also an intercommunication telephone system.

Dyersburg, Tenn.—Store Building.—Stevens Lumber Co. will rebuild structure reported burned last week; to be occupied by the Famous Supply Co.

Fayette, Miss.—Building.—F. Krauss & Sons will erect a two-story building of brick, steel and plate-glass, costing $20,000, replacing structure recently burned.

Fayette, Miss. — Business Building. — Jeff Truly will replace building recently burned, erecting a $30,000 structure.

Fayette, Miss.—Store Building.—L. H. Freeman will erect a two-story brick building to cost $4000.

Fort Screven, Savannah, Ga. — Buildings, etc.—An appropriation of $31,000 has been made for improvements at Fort Screven, to include the building of a torpedo storehouse and tank for storing cable, loading-house for charging of submarine mines, a submarine-mining casemate and primary and secondary stations for the location of submarine mines. Some of the buildings will be constructed of corrugated iron and others of steel-concrete. The War Department has advised Col. Dan C. Kingman to prepare plans and estimates for a permanent wharf to be built on Tybee Island near Fort Screven, and will probably be constructed of steel-concrete piling.

Fort Worth, Texas—Dwelling.—S. Wemyss Smith and L. G. Schenk are preparing plans for residence to be erected by George Scaling at Arlington Heights; two stories; brick with stone trimmings; modern plumbing; electric wiring and fixtures; hot-air heating plant, etc.

Fort Worth, Texas—Sanitarium.—Construction work has begun on Dr. Turner's Arlington Heights Sanitarium, Dr. John S. Turner, president; to contain 35 rooms; be constructed of wood and plaster; ordinary and fireproof construction; hot-air heating plant; electric fixtures; O. F. Walton, Terrell, Texas, prepared the plans; work on building being done by day labor, J. A. Hightower, foreman.*

Frenchburg, Ky.—Courthouse.—Contract has been let by the Menifee County Fiscal Court for the erection of $15,000 courthouse.

Gadsden, Ala.—Business Building.—Wm. A. Smith has contract to erect business building for Mrs. Ada V. Byers, Ashville, Ala., mentioned recently; structure to be 25x100 feet; brick; equipped with electric fixtures; cost $5000. Duncan Simpson prepared the plans.

Gadsden, Ala.—Building.—A. D. Simpson is preparing plans for three-story building 50x130 feet, reported December 6 to be erected by Caldwell & Spencer Company. One freight elevator will be installed.

Galveston, Texas—Building.—The building reported November 29 to be erected by A. O. Slaughter, 139 Monroe street, Chicago, Ill., for which Deats, Crossley & Co. have contract, will be 85x40 feet; two stories; combination gas and electric fixtures; cost $15,300; Southern Hydraulic Stone Co., architects.*

Galveston, Texas—Wharf and Warehouse.—Galveston Wharf Co., which is completing the erection of piers 37 and 38 and the construction of warehouses, for which Bowden & Worth have the contract, is arranging for the location of another pier and warehouse of the same dimensions at pier 39. Piers 37 and 38 have a floor space amounting to 280,000 square feet, their full length is 1200 feet, and 1,000,000 bricks were used in putting down floor at 37. The sheds are constructed of galvanized iron, covered with a fireproof roof.

Greensboro, N. C.—Hotel.—B. H. Merrimon will erect two additions to the Guilford hotel, 92x40 and 60x40 feet; steam heat; electric and gas fixtures; elevator; cost $50,000; contract will be let March 1. (Referred to December 6.)*

Hattiesburg, Miss.—City Hall and School Building.—City will issue bonds for the erection of $66,000 City Hall and $25,000 school building. Address The Mayor.

Hawkinsville, Ga.—City Hall and Auditorium.—City has voted affirmatively the $15,00

bond issue mentioned November 1 for the erection of city hall and auditorium. Plans for same have been prepared by W. R. Glenn, Macon, Ga. C. W. Harris is City Clerk.

Homer, La.—Bank Building.—Rice & Davis, Monroe, La., have contract at $4545 for the erection of building for the Bank of Claiborne.

Hot Springs, Ark.—School Building.—J. W. Golucke & Co., Atlanta, Ga., have been commissioned to prepare plans for $100,000 high-school building mentioned October 18.

Houston, Texas—Church.—J. W. Slaughter Construction Co. and Theo. Beilharz of Dallas, Texas, have contract to erect proposed edifice for St. Paul's Methodist Church; cost $175,000.

Jacksonville, Miss. — Building. — Joel F. Johnson has adopted plans by R. H. Hunt, Chattanooga, Tenn., for proposed eight-story brick and stone building; cost $130,000.

Kansas City, Mo.—Union Station.—John V. Hanna of St. Louis, Mo., has been appointed chief engineer of the construction of union station previously reported to be erected by the Kansas City Terminal Railway Co., John M. Egan, president. Jarvis Hunt is the architect.

Kansas City, Mo.—Office Building.—J. C. Gates is reported to erect five-story office building to cost $60,000.

Kansas City, Mo.—Office Building.—A. M. Gloyd and E. F. Gloyd are arranging for the erection of 10-story building.

Key West, Fla.—Wharf.—Contract will be let January 17 for all necessary concrete work and the erection of wharf for the Florida East Coast Railway. J. C. Meredith, constructing engineer, Miami, Fla. (See proposal under "Concrete Work.")

Knoxville, Tenn.—Apartment-house.—H. L. Underwood has completed arrangements for the erection of pressed-brick and stone apartment-house to cost $15,000.

Knoxville, Tenn.—Apartment-house.—T. M. Michaels has taken out a permit for the erection of proposed apartment-house; pressed brick with stone trimmings; cost $15,000.

Knoxville, Tenn.—Store Building.—August Uhlrich will erect store building to cost $10,000.

Lafayette, La. — Courthouse. — Lafayette Parish Police Jury will probably call an election to vote a tax for the erection of courthouse.

Lafayette, La.—School Building.—Building committee for proposed graded-school building has rescinded contract recently awarded the Murphy-Laramer Construction Co. at $46,000 for erection of school building, for which plans were prepared by Andrew J. Bryan. It is proposed to advertise for new plans and bids.

Lake Charles, La.—Infirmary.—Bids are being taken on infirmary to be erected by the Sisters of the Incarnate Word, for which Sanguinett & Staats, Fort Worth, Texas, were reported September 27 as preparing plans.

Lexington, O. T. — Dwelling. — Dr. G. P. Johnson will erect residence to cost $4000 or $5000; electric fixtures will be installed.

Lexington, Va.—Library Building. — Plans by Theodore Link, St. Louis, Mo., have been adopted for proposed $50,000 Carnegie library building at Washington and Lee University.

Martinsburg, W. Va. — Bank Building. — Bids will be received until December 22 for building to be erected by the Old National Bank. For plans and specifications apply to Holmboe & Lafferty, architects, Clarksburg, W. Va., or to the bank.

Maysville, Ky. — School Buildings. — The plans by Anderson & Frankel, Lexington, Ky., have been recommended to the Board of Education for adoption for $50,000 high-school building and $20,000 district-school building, previously reported to be erected.

Memphis, Tenn.—Business Building.—R. R. Heath has contract to erect four-story brick building for the Sturla estate, for which Chighizola, Hanker & Cairns were reported November 29 as preparing plans; cost $16,000.

Memphis, Tenn.—Clubhouse.—People's Suburban Club, organized with M. J. Roach, president, and Thomas A. Taylor, general manager, has purchased 30 acres of land and will erect a $25,000 clubhouse, arrange for golf links, etc.

Mendenhall, Miss.—Courthouse.—L. W. Land of Jackson, Miss., has contract at $59,900 for the erection of courthouse for Simpson county, previously mentioned.

Meridian, Miss.—Terminal Buildings.—Bids are being received by D. D. Curran, general manager, New Orleans, La., for terminal buildings reported October 11 to be erected by the New Orleans & Northeastern Railroad, Alabama & Vicksburg Railway and Alabama Great Southern Railway, for which plans have been prepared by Frank P. Milburn & Co., Home Life Building, Washington, D. C.; one building to be one-story, 44x502 feet, and the other partly one and partly two stories, 67x202 feet; reinforced concrete foundations; brick construction; slate roof; reinforced concrete fileroom. J. C. Haugh is resident engineer.

Mt. Sterling, Ky.—Warehouse.—Montgomery Bluegrass Seed Co. has completed arrangements for the erection of proposed fireproof warehouse.

Newbern, N. C.—Jail Building.—Board of Commissioners of Craven county, C. E. Foy, chairman, will receive bids until February 4, 1907, for rebuilding and remodeling county jail, in accordance with plans and specifications on file in the office of the Register of Deeds, Newbern. Certified check for $500, payable to the County Treasurer, must accompany each bid. Usual rights reserved.

Newberry, S. C. — Courthouse. — Plans by Frank P. Milburn & Co., Home Life Building, Washington, D. C., will soon be ready for bids on courthouse to be erected by Newberry county.

New Orleans, La.—Hotel.—Dr. L. Williams, 1331 St. Charles avenue, has purchased site on which it is stated a six-room hotel will be erected.

Nixon, Texas — Building. — B. C. Juier of Baton Rouge, La., has purchased site on which to erect brick building 50x100 feet.

Newport News, Va.—Hotel.—Incorporated: Hotel Annex Corporation, with $10,000 capital stock. J. W. Davis is president and A. T. Moore secretary-treasurer.

Norfolk, Va.—Hotel.—Neff & Thompson are completing plans for a three-story hotel building to contain 250 rooms to be erected by R. Randolph Hicks, J. T. Wool, A. F. Butts and A. E. Warner.

Norfolk, Va.—Dwelling. — Southern Realty Corporation has secured a permit for the erection of a two-story brick residence to cost $5000.

Norfolk, Va.—Store Building.—The building to be erected by Miller, Rhoads & Swartz, for which E. Tatterson was reported November 1 as having contract, will be five stories of reinforced concrete and equipped with steam heat, electric fixtures and electric elevators. Breese & Mitchell prepared the plans.

Norfolk, Va.—Hospital.—Taylor & Hepburn are preparing plans for a new wing recently authorized for the Protestant Hospital by the board of directors, to contain 20 rooms with baths, etc.

Oklahoma City, O. T.—Hotel.—R. H. Drennan, Herman Mack, together with Chicago (Ill.) capitalists, are organizing company to erect a $300,000 hotel. Mr. Mack will be manager.

Paris, Ky. — Roundhouse. — Reported that the Louisville & Nashville Railroad is arranging for the erection of roundhouse. W. H. Courtenay, Louisville, Ky., is chief engineer.

Perry, Ga.—Warehouse.—R. J. Marchman and C. G. Duncan, Jr., will shortly begin the erection of a brick warehouse.

Pine Bluff, Ark.—Business Building.—Knox Scull is having plans prepared for a two-story brick building.

Pine Bluff, Ark.—Masonic Temple.—R. W. Lane is completing plans for a two-story addition to the Masonic Temple.

Porum, I. T.—School Building.—Reported that the city has voted an $8000 bond issue for the erection of school building. Address City Clerk.

Salisbury, N. C.—Hospital.—A. R. Lazenby has contract to erect building for the Snyder Memorial Hospital, for which plans were reported October 18 as being prepared by Frank P. Milburn & Co., Home Life Building, Washington, D. C.; brick and stone; tile roof; two stories and basement; cost $30,000.

Salisbury, N. C.—Hospital.—Plans by Frank P. Milburn & Co., Home Life Building, Washington, D. C., have been adopted for proposed $10,000 public hospital.

San Antonio, Texas—Hotel.—A company is being organized by L. J. Hart with $300,000 capital stock to erect hotel. Site has been purchased on which to erect 10-story building 100x168 feet.

Sapulpa, I. T.—Church.—Methodist Episcopal Church South will erect a $7000 edifice. Address The Pastor.

Selma, Ala. — Umbrella Shed. — Southern Railway will erect a frame umbrella shed 13x260 feet, the roof covered with tin shingles. C. H. Ackert is fourth vice-president and general manager, Washington, D. C. (Mentioned November 29.)

Selma, Ala.—Building.—Charles G. Tissier will erect a five-story building.

Sewell's Point, Va.—Exposition Building.—Bids for the erection of the West Virginia Building on the Jamestown Exposition grounds will be opened December 22 at the committee-room of Hon. Stephen B. Elkins in the National Capitol at Washington, D. C. Plans and specifications may be seen at office of Rabenstein & Warne, architects, Charleston, W. Va. All bids should be sent to Virgil A. Lewis, secretary of the West Virginia Commission, Charleston, W. Va., or to him in care of Judge George W. Atkinson, Court of Claims, Washington, D. C.

Sewell's Point, Va.—Exposition Building.—North Carolina Commission to the Jamestown Exposition, George S. Powell, president, Asheville, N. C., has rejected all bids for the erection of State building, and has adjourned to meet in Norfolk, Va., next week, when contract will be awarded.

Sewell's Point, Va.—Exposition Building.—A bill will be presented to Congress calling for an appropriation of $25,000 to defray the cost of erecting building for the District of Columbia at the Jamestown Exposition. Henry B. F. Macfarland and Henry L. West, District Commissioners, Washington, D. C., are in charge.

Seymour, Texas—Cotton Warehouse.—Farmers' Union Warehouse Co. has been incorporated with $2500 capital stock by A. H. Lee, F. A. Hefner, B. P. Bembry, E. L. Craddock and A. F. Claflin.

Shreveport, La.—City Hall.—C. G. Rives, Comptroller, will receive plans and specifications until December 20, including plans of elevation, for the erection of City Hall, cost not to exceed $75,000. All bids to be made in accordance with ordinance adopted by the City Council September 11, 1906, which can be had on application to W. R. Thomas, secretary. To the three best plans received $1000 will be awarded: First, $600; second, $300; third, $100. Usual rights reserved.

Shreveport, La.—Warehouse.—Allen Manufacturing Co., Ltd., wants plans and estimates on the cost of erecting a four-story warehouse, 60x150 feet; absolutely fireproof; reinforced concrete or steel and brick.*

Springfield, Mo.—School Buildings.—Drischler & Elsner, Wainwright Building, St. Louis, Mo., are preparing plans for building at State Normal School, District No. 4, mentioned last week. A main building, 226x110 feet, to be used as an academic hall, and two minor buildings, each 130x72 feet, stone faced, for science and pedagogy halls, will be erected; fireproof construction; fan-system heating; electric fixtures.

Stamford, Texas—College Building.—Walter Nelson, secretary, will receive bids until December 20 for main building Stamford Collegiate Institute. Complete plans and specifications may be seen at the secretary's office, Stamford; also at offices of Campbell & Harris Lumber Co., Dallas, Texas; Cicero Smith & Son, Fort Worth, Texas; Brazelton, Pryor & Co., Waco, Texas; W. H. Norris Lumber Co., Houston, Texas; building to be of modern stone or brick, 125x105 feet. Usual rights reserved.

Stamford, Texas—School Building.—Charles Brewington, secretary Stamford Independent School District, will receive plans and specifications until December 20 for the erection of a 10 to 12-room school building of brick or stone, to contain basement and auditorium, and cost not to exceed $17,000 complete, including heating and sanitary appliances; usual rights reserved.

St. Augustine, Fla.—School Building.—Edwards & Walter, Columbia, S. C., have been commissioned by the Board of Control to prepare plans for proposed new buildings for the Deaf and Blind School, to cost about $75,000.

St. Louis, Mo. — Stable. — Christian R. Schneider has purchased site on which to erect a two-story brick stable.

St. Louis, Mo.—Building.—Contract will be let December 29 for building to be erected by the La Salle Building Co., Wm. H. Miltenberger, president; 19 stories, 28x102 feet; steel frame; exterior of white enameled terra-cotta; window frames of copper with double sets of glass in the lower frame and single in the upper; outside pane of lower sash to be of mesh wireglass; staircase to be inclosed in concrete walls from top to bottom, with steel doors leading to each floor, making the stairway a fire escape; three elevators inclosed in mesh wireglass; window cases of marble and base of either slate or marble; floors to be rubber tiles laid in concrete; basement of building will be finished in marble.

Sulphur Springs, Ark.—Sanitarium.—Chartered: Sulphur Springs Sanitarium Co., with $20,000 capital stock, by John Allen, Lolo D. Gillespie, Konrad Biorck and E. Bee Guthrey.

Washington, D. C.—Office Building.—It is reported that W. O. N. Scott, 1211 Connecticut avenue N. W., will erect office building at northeast corner 15th and F streets N. W.

Washington, D. C.—School.—The District Commissioners have commissioned Lem W. Norris, architect, 1441 U street N. W., to prepare plans and specifications for three-story addition, 130 feet long, to McKinley Training School to cost about $135,000.

Washington, D. C.—Dwelling.—Edward M. Dulin, 2220 Pennsylvania avenue N. W., will erect dwelling at 1270 New Hampshire avenue N. W.; three stories; brick with stone trimmings; slate roof; galvanized-iron cornice; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; cost about $15,000; W. S. Plager, architect, 3 B street N. W.

Washington, D. C.—Dwellings.—Charles W. King, Jr., builder, 1519 Monroe street N. W., will erect four three-story brick dwellings at 3311-3317 16th street N. W. to cost about $30,000. Eletric wiring and fixtures, sanitary plumbing and hot-water-heating systems will be installed; A. H. Sonneman, architect, 1424 New York avenue N. W.

Washington, D. C.—Dwellings.—Martin H. Bray, builder, 1414 N street N. W., will erect three two-story brick dwellings with hot-water-heating systems at 1437-1441 East Capitol street to cost about $10,000; William C. Allard, architect, 609 13th street N. W.

Washington, D. C. — Stable. — Christian Heurich Brewing Co., 26th and D streets N. W., will erect addition to stable at 26th and E streets N. W.; two stories; brick with stone trimmings; structural iron and steel; galvanized-iron cornice; slag roof; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Apartment-house.—W. D. Sullivan, 13th and G streets N. W., has purchased lot at corner Pennsylvania avenue and 22d street N. W. and will erect four-story apartment-house on the site, with stores on the ground floor.

Washington, D. C.—Suburban Development. The Fourteenth Street Heights Land Co. has awarded contract to Gilbert C. Spitzer, Home Life Building, 15th and G streets N. W., to develop suburban tract for residential purposes. Water, sewerage, gas and electric lights and granolithic walks will be provided. The same company has also awarded contracts to the Building and Supply Corporation, Home Life Building, for the erection of a number of frame dwellings on the site.

Washington, D. C.—Assembly Hall.—The following architects have entered competition for preparing final plans for $75,000 assembly hall for the Government Hospital for the Insane: Wood, Donn & Deming, 808 17th street N. W.; Appleton P. Clark, Jr., 605 F street N. W.; Wyeth & Cresson, 1517 H street N. W.; Marsh & Peter, 520 13th street N. W.; B. Stanley Simmons, 931 F street N. W.; Oscar G. Vogt, Corcoran Building, 15th and F streets N. W.; Totten & Rogers, 808 17th street N. W., and W. M. Poindexter, 806 17th street N. W., all of Washington, D. C.; Wyatt & Nolting, Keyser Building, Baltimore, Md.; Bruce Price & De Sibour, Boring & Tilton and Howard Greenley, New York, and Rankin, Kellogg & Crane, Philadelphia, Pa. Secretary of Interior will have charge of the competition.

Washington, D. C.—Clubhouse.—Charles J. Cassidy, 523 13th street N. W., was the lowest bidder for all-stone front, and James M. Dunn, 1324 5th street N. W., for brick-and-stone front, for the construction of clubhouse on H street between 9th and 10th streets N. W. for Washington Lodge No. 15, B. P. O. E.; five stories, 50x133 feet; all-stone or brick-and-stone exterior; structural iron and steel; fireproofing; tile roofing, galvanized-iron cornice; interior marble; electric wiring and fixtures; sanitary plumbing; elevator; B. Stanley Simmons, architect, 931 F street N. W.

Washington, D. C. — Warehouse. — W. S. Spencer, 930 F street N. W., was the lowest bidder for the construction of warehouse on alley between 13th, 14th and G streets and New York avenue N. W. for Thomas Hude, 1503 Pennsylvania avenue N. W.; four stories, 27x106 feet; brick with stone trimmings; structural iron and steel; reinforced concrete floors; metal frames and sashes; fire doors; terra-cotta partitions; galvanized-iron skylights and cornice; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; Marsh & Peter, architects, 520 13th street N. W.

Washington, D. C.—Dwellings.—Allard & Appleby, builders, 609 13th street N. W., will erect three three-story brick and stone dwellings with hot-water heating systems at 1819-1823 Monroe street, to cost about $15,000.

Washington, D. C.—Warehouse.—E. J. Murphy Company, 1108 G street N. W., has awarded contract to W. L. Turner, 41 Q street N. W., for the construction of ware-

house at 708 12th street N. W.; two stories, 25x67 feet; brick with stone trimmings; slag roof; Harry Blake, architect, 614 11th street N. W.

Washington, D. C.—Dwellings.—John H. Lloyd, builder, 718 Irving street N. W., will erect five two-story brick dwellings with hot-water heating systems at 3633-3641 11th street N. W., to cost about $15,000; N. T. Haller Company, architect, Corcoran Building, 15th and F streets N. W.

Washington, D. C.—Dwellings.—John Sherman and E. B. Sherman, 1413 G street N. W., have awarded contracts to John Simpson & Sons, Forest Glen, Md., for the construction of three two-and-one-half-story frame dwellings with hot-air heating systems at 2957, 2961 and 3022 Macomb street, Cleveland Park, to cost about $15,000.

Washington, D. C. — Dwellings. — William Yost & Bro., builders, 1002 Pennsylvania avenue S. E., will erect seven two-story brick dwellings with steam-heating systems at 700-712 E street N. E., to cost about $16,000.

Waycross, Ga. — School Buildings. — Construction work will begin at once on two school buildings to cost $12,500 each, for which A. S. Morton has contract.

Waxahachie, Texas — Warehouse. — Waxahachie Cotton Mills will build another warehouse.

West Liberty, Ky. — Courthouse. — W. G. Blair, J. H. Sebastian and J. P. Haney, Courthouse Building Committee, will receive bids until December 20 for furnishing materials and erecting courthouse, in accordance with plans and specifications on file in the County Clerk's office, West Liberty; Room 217 Tyler Building, Louisville, Ky., and Builders and Contractors' Exchange, Cincinnati. Usual rights reserved.

West Monroe, La.—City Hall.—Town will erect a two-story brick City Hall 40x90 feet, for which bonds were reported last week as voted. R. L. Rinehart is Mayor.

Westville, Miss.—Courthouse.—L. W. Land of Jackson, Miss., has contract at $59,900 for the erection of courthouse for Simpson county, previously mentioned.

Wrightsville, N. C.—Hotels.—T. B. Cotter of Boston, Mass., and associates, it is reported, contemplate erecting hotels at Wrightsville and Wrightsville Beach, expending $1,500,000.

Wynne, Ark.—Opera-house.—Cross County Investment Co. is reported to erect a two-story opera-house.

RAILROAD CONSTRUCTION.

Railways.

Aiken, S. C.—James U. Jackson of Augusta, Ga., vice-president and general manager of the Augusta & Aiken Electric Railway, is reported as saying that work will begin on the line to Columbia, 75 miles long, immediately after the holidays. Right of way has been secured and preliminary survey made.

Asheville, N. C.—The Louisville & Nashville Railroad, it is reported, is seeking a route to enter Asheville. It is said that this will be from Knoxville, Tenn., along the Pigeon river to near Newport, Tenn., and thence via Smoky Mount and Waynesville, N. C. W. H. Courtenay is chief engineer at Louisville, Ky.

Beaufort, N. C.—Reported that the Charleston & Western Carolina Railway (Atlantic Coast Line system) is contemplating building a 10-mile branch from Sheldon, N. C., to the phosphate mines of the Virginia-Carolina Chemical Co. on Bull river. E. B. Pleasants is chief engineer at Wilmington, N. C.

Birmingham, Ala.—The Alabama Railway & Power Co. has been incorporated to build a line from Chattanooga, Tenn., via Alberville to Birmingham, Ala., about 135 miles. The incorporators are H. T. Henderson of Durango, Col.; C. L. Young, Jr., J. M. and J. H. Hill of Fort Payne, Ala., and J. P. Montgomery of Ashville, Ala.

Brunswick, Ga.—Glynn county has decided to grade the proposed extension of the Georgia Coast & Piedmont Railway from Darien to Brunswick, Ga., 18 miles, the work to be done by the county chain gang. Thus the county will give in labor, right of way, etc., about $100,000 to secure this extension, on which it is expected that construction will begin by March 1. H. D. Emerson is vice-president and general manager of the road at Darien, Ga.

Canton, N. C.—Reported that survey has begun for a railroad from Canton to Knoxville, Tenn.

Charleston, S. C.—D. E. Baxter & Co., 27 William street, New York, have two large construction gangs at work on the Charleston & Summerville Electric Railway, one at each end of the line. A press report says that J. W. Griffith & Bro. are grading at Charleston end and James Hawley at the Summerville end.

Columbia, S. C.—The South Carolina Public-Service Corporation will open books for stock subscription at Orangeburg, S. C., on January 9. The company gives notice that it will on January 16 apply for a charter to build its proposed line to connect Charleston, Orangeburg, Columbia, Lexington, Saluda, Greenwood, Abbeville, Anderson, Greenville, Gaffney, Yorkville, Rock Hill, Chester, Union, Laurens, Newberry, Aiken and Bamberg and other cities and towns. Charles R. Van Etten, Joseph J. Timmes, Lawrence M. Pinckney and others are the incorporators.

Columbia, S. C.—The Seaboard Air Line has bought 29 acres of land at Cayce, opposite Columbia on the Congaree river, and proposes to build freight yards, shops, etc. W. L. Seddon is chief engineer at Portsmouth, Va.

Columbia, Tenn.—Horace Rainey has applied to the Mayor and Board of Aldermen for a franchise for the Columbia & Mount Pleasant Interurban Railway.

Covington, Tenn.—Survey, plans, etc., for the proposed Memphis, Covington & Northern Railway, an electric line, have been completed by the W. K. Palmer Company, Dwight Building, Kansas City, Mo. Road is to be 39 miles long from Memphis to Covington and beyond, and is to be part of a system of interurban lines around Memphis.

Dallas, Texas.—P. B. McDonald, president of the Texas Northern Railway Co., is reported as saying that it is now ready to let contracts for the first four miles of its line out of Dallas toward Egan, Texas.

El Reno, Okla.—The Oklahoma & Canadian River Railroad Co. is reported chartered in the interest of the Rock Island System to build a line from El Reno, Okla., to Meade, Kan., 245 miles. J. B. Berry is chief engineer of the Rock Island at Chicago, Ill. Another report says that the corporation is under the name of the Guthrie & Canadian River Railway; estimated cost $6,125,000. The incorporators are C. C. Blake, E. E. Blake and H. B. Low of El Reno, Okla., and Paul E. Walker and M. A. Low of Topeka, Kan.

Fort Smith, Ark.—The United Cities Traction Co. has, it is reported, been incorporated to carry out the electric railway plan of Ira L. Reeves, W. R. Eaton, H. G. Baker, J. T. Nelson and C. N. Haskell, who are the incorporators. Mr. Reeves is president; Mr. Baker, vice-president; Mr. Nelson, treasurer. The secretary is J. W. Underwood. Five miles are to be built immediately, and the line is finally to reach Muskogee, I. T.; capital $100,000, all subscribed.

Glen Mary, Tenn.—The Glen Mary Railway Co. has been incorporated with $50,000 capital to build a line about 25 miles long from a connection with the Queen & Crescent at Glen Mary to Oliver Springs, Tenn. The incorporators are G. N. Chandler, J. W. Scott, R. M. Jones, H. M. Carr and Robert Walton.

Greensboro, N. C.—An officer of the Seaboard Air Line informs the Manufacturers' Record that he knows nothing of any intention on the part of the company to build a line to Greensboro. This denies a recent press report.

Greenville, S. C.—W. H. Patterson, president of the Greenville & Knoxville Railroad, is quoted as saying that five miles of track have been laid.

Hampton, Tenn.—The W. M. Ritter Lumber Co. of Columbus, Ohio, is reported to be building a railroad from Elizabethton to Hampton and also from Hampton, 12 miles up Tiger creek, the line to be completed by January 1.

High Point, N. C.—The Southern Railway Co. has, it is reported, surveyed for a detour line starting from a point on the Ashboro road several miles out of High Point to a point on the main line south of High Point. W. H. Wells is engineer of construction at Washington, D. C.

Jackson, Miss.—C. D. Smith & Co. of Memphis, Tenn., have, it is reported, been given a contract for building an extension of the New Orleans Great Northern Railroad from Jackson up the Pearl river valley to Edinburg, Miss., about 65 or 70 miles. This firm has the contract for the extension from Smith's Ferry to Jackson, and it has given a subcontract there to A. G. Brown. The work on the extension to Edinburg will, it is said, begin on January 1, and subcontracts are now being allotted.

Lawton, Okla.—The Kansas City, Mexico & Orient Railway Co. is reported to be preparing to build its proposed line from Barton, Okla., through the Indian Territory to some point in Arkansas, the line to be completed within 18 months. M. P. Paret is chief engineer at Kansas City.

Leslie, Ark.—The Missouri & North Arkansas Railroad has ratified the purchase of the charter of the St. Louis & Southeastern Railroad, which was organized to build from Leslie to Little Rock, Ark. The Allegheny Improvement Company, which will build the extension from Leslie to Pangburn and from Pangburn to Helena, has sublet to Burke & Joseph a contract for 75 miles from Leslie to Pangburn. The company also proposes to build at the other end of its line from Seligman to Joplin, Mo. W. S. Dawley is chief engineer at Eureka Springs, Ark.

Little Rock, Ark.—H. U. Mudge, second vice-president of the Rock Island system, is reported as saying that the land recently purchased here on the river is for yards, though shops and roundhouse may later be built. J. B. Berry is chief engineer at Chicago.

Lumberton, N. C.—The Board of Trade has appointed a committee composed of N. A. McLean, George B. McLeod and A. E. White on the proposition to build a railroad from Lumberton to Hope Mills, or some other point on the Atlantic Coast Line between Hope Mills and Red Springs. The Aberdeen & Rock Fish Railroad Co. has proposed to build the line for a bonus of $15,000.

Madison, Fla.—The Madison Southern Railway Co. has been chartered with $50,000. John W. West is president and W. P. Smith is secretary and treasurer. Office at Jacksonville, Fla.

Madisonville, Ky.—An officer of the Louisville & Nashvile Railroad informs the Manufacturers' Record that the company is not at present contemplating double-tracking the line from Nortonville to Slaughterville, Ky. This denies a recent press report.

Markham, Texas. — Reported that survey has begun for a railroad from Buckeye, four miles south of Markham, to Ashby, Texas, via the Tres Palacios Rice & Irrigation Co.'s plant.

Mineral Wells, Texas. — An old railroad grade, 14 miles long, from Mineral Wells to the Texas Pacific Railway, is reported purchased by the Gould interests, which control the Texas Pacific. B. S. Wathen, chief engineer of the latter at Dallas, Texas, may be able to give information concerning any proposed construction.

Muskogee, I. T.—Reported that citizens of South McAlester, I. T., have subscribed and guaranteed a bonus of $125,000 for the proposed Indian Central Railroad to be built from Claremore, I. T., to Paris, Texas. Chief Pleasant Porter of Muskogee and others are the incorporators.

Nashville, Tenn.—F. B. Howard has, it is reported, completed survey from Chattanooga nearly to Nashville for the proposed electric railway to be operated from a power plant at Caney Fork Falls planned by C. H. Fiske and others.

New Orleans, La.—The City Council has passed the ordinance appropriating $225,000 for the completion of the Public Belt Railroad. J. W. Porch is chairman of the Belt Railroad Commission.

Nocona, Texas. — Reported that the Missouri, Kansas & Texas Railway contemplates building a line from Nocona to Pauls Valley, I. T. J. W. Petheram is chief engineer at Dallas, Texas.

Norfolk, Va.—Marsden J. Perry, chairman of the board of the Norfolk & Southern Railway Co., is reported as saying that it is planned to spend from $15,000,000 to $20,000,000 to improve the various lines recently merged in that company. F. L. Nicholson is engineer maintenance-of-way at Norfolk, Va.

Norfolk, Va.—J. A. C. Groner, receiver, is reported as saying that as soon as the Bay Shore Railway is gotten out of the courts E. B. Smith & Co. of Philadelphia, the purchasers, will spend $400,000 for improvements on the line, besides $250,000 on the new ferry.

Oklahoma City, Okla.—An official of the Rock Island system is reported as saying that plans have been prepared for a union passenger terminal in Oklahoma City. J. B. Berry is chief engineer at Chicago.

Oklahoma City, O. T.—The Oklahoma Railway Co. has been chartered to build 170 miles of interurban electric railways connecting the principal cities of Oklahoma and Indian Territory. Two main lines are provided for, one from Guthrie via Oklahoma City to Purcell, and the other from Shawnee to El Reno and Fort Reno. The incorporators are Frank Wells, O. R. Rittenhouse, G. G. Barnes, J. J. Jonnson, Carlos Combs, Fred S. Combs and Edward L. Lawson, all of Oklahoma City.

Paris, Ky.—The Louisville & Nashville Railroad has made surveys to enlarge its yards at Paris by the building of eight new tracks. W. H. Courtenay is chief engineer at Louisville, Ky.

Pelham, Ala.—The Louisville & Nashville Railroad is pushing construction on the branch from a point near Pelham, 14 miles to coal lands owned by H. F. DeBardeleben and associates. Dunn & Lalande have the contract, and M. Casey & Co. are subcontractors for four miles.

Rockland, Texas.—The Burr's Ferry, Browndell & Chester Railway is reported to have let contract for the proposed extension from Aldredge to Browndell, Texas, 23 miles. P. G. Omohundro is chief engineer at Rockland.

Romney, W. Va.—J. Sloan Kuykendall of Romney is reported to be securing rights of way in and around Moorefield, W. Va., for the proposed railroad from Romney up the South Branch valley. He is quoted as saying that the line has been financed.

San Antonio, Texas. — Michael Goggan, president of the Texas Railway Co., is quoted as saying that construction is well under way and he expects to have the road in operation from Victoria, Texas, to Port O'Connor, Texas, by April 1. Rails and equipment have been ordered.

Springfield, Mo.—The Willier Construction Co. has completed grading on the Springfield Southwestern Railway of the Missouri-Pacific System from Springfield to Crane, 34½ miles, and track-laying begins immediately. Contracts were let to R. M. Bush, a sub-contractor, and to A. N. Hanson of Springfield for grading the right-of-way within the city.

Springfield, Md.—The Commercial Club of Springfield is reported to be considering plans for building an electric railway from Springfield to Nevada, Mo., 95 miles.

Statesboro, Ga.—The Register & Glennville Railroad, operated by the Perkins Lumber Co., will, it is reported, build an extension from Adabelle to Statesboro, Ga., 15 miles. W. C. Perkins is vice-president and general manager at Hagan, Ga.

St. Marys, Ga.—Construction on the Waycross, Nashville & St. Marys Railroad has now begun at the Waycross end of the line after being under way for some time at the St. Marys end. About 35 miles of the proposed line will, it is said, be used for hauling logs to the Bailey Manufacturing Co.'s plant.

Sturgis, Ky.—Reported that the West Kentucky Coal Co. will build a line 10 miles long from Sturgis to Wheatcroft, Ky. C. J. Bucher is general superintendent at Sturgis.

Town Creek, N. C.—The Town Creek Railroad & Lumber Co., it is reported, begun construction on its railroad from Navassa to Town Creek. One mile of track is laid out of Navassa and the route is cleared nearly all the way.

Virginia City, Va.—Miller & Hoback of Virginia City are reported to be building four miles of narrow-gauge railroad from a connection with the Norfolk & Western Railway to reach their properties.

Waycross, Ga.—Reported that $80,000 has been subscribed for the proposed Waycross, Bazley & Vidalia Railroad and that survey for the line, which will be 80 miles long, will be finished by January, and it is desired to start construction by February.

Street Railways.

Wilson, N. C.—Application has been made to the Board of Commissioners for an electric street railway franchise. It is said that out-of-town capital is interested.

Maryland Company to Build Ship.

The necessity for another steamship on the Cape Charles and Norfolk service of the New York, Philadelphia & Norfolk Railway has resulted in the awarding of a contract to the Maryland Steel Co. of Sparrows Point, Md. This contract calls for the construction of a passenger boat (sister ship to the Pennsylvania, now on the route) with two screws and capable of a speed of 17½ miles per hour. It will probably be named the Maryland. Dimensions: Length over all, 260 feet; length between perpendiculars, 249 feet 6 inches; beam, molded, 40 feet; depth of hold, molded, 15 feet 3½ inches; draft, 9 feet 6 inches. There will be two triple-expansion engines, cylinders 17, 27½ and 44 inches in diameter, respectively, with a common stroke of 26 inches. Steam will be furnished by four boilers, each 11 feet 6 inches long, 12 feet in diameter, working pressure 180 pounds. This equipment will make 1900 horse-power. Besides this boat, there are three other large hulls on the ways at the Sparrows Point yard, all constructed of steel. They are the two 284-foot dredges for Panama and the 305-foot boat for the Old Bay Line. The Boston & Philadelphia Steamboat Co.'s passenger steamer, launched on November 24, is at the fitting-out department, and will soon be ready for the trial trip.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Bank Fixtures.—Bank of Bauxite, Bauxite, Ark., will purchase bank fixtures.

Boiler.—Noah Webster of G. L. Webster & Son, Cambridge, Md., wants a good second-hand 60-horse-power boiler. (See "Engine and Boiler.")

Boiler.—See "Engine and Boiler."

Boiler.—Estill Sand & Gravel Co., Chamber of Commerce, Nashville, Tenn., wants a 50 to 80-horse-power boiler. (See "Engine and Boiler.")

Boiler.—John N. Adams, Del Rio, Tenn., wants a 25-horse-power locomotive boiler; delivery at Newport, Tenn. (See "Engines and Boiler.")

Boiler.—Battey Machinery Co., Rome, Ga., wants 75 to 100-horse-power return-tubular boiler; second-hand in good condition preferred. (See "Engine and Boiler.")

Boilers.—Consumers' Light & Power Co., William Fredeking, president, Hinton, W. Va., wants two boilers of 150 horse-power each.

Boring Machine.—W. E. Napp, Jonesboro, Tenn., wants machinery for boring woodwork, such as cutting screw threads on wood.

Building Materials.—Deats, Crossley & Co., Galveston, Texas, want sash, doors, blinds and plate glass.

Building Supplies.—B. H. Merrimon, Greensboro, N. C., wants prices on 5000 feet tiling and 5000 feet marble wainscoting.

Canal Construction.—The date of opening bids for the construction of the Panama Canal has been postponed from December 12 to January 12, 1907, and certain changes have been made in the contract forms to give bidders better protection. The amount of bond required has been reduced from $3,000,000 to $2,000,000. Bids will be opened in the offices of the Isthmian Canal Commission, Washington, D. C., and the blank forms and other data have been on view in and obtainable from the offices of the Commission; Assistant Purchasing Agent, 21 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco; Chief Quartermaster, U. S. A., Chicago, and Chief Paymaster, U. S. A., St. Louis.

Cement.—Allen Manufacturing Co., Ltd., Shreveport, La., wants exclusive agency for high-grade Portland cement.

Cement-plant Equipment.—The Blue Seal Portland Cement Co., 264 New York Life Building, Kansas City, Mo., is in the market for machinery for the complete equipment of a cement mill.

Concrete Work.—J. C. Meredith, constructing engineer Florida East Coast Railway, Miami, Fla., will receive bids until January 17 for constructing a concrete quay wall and filling, involving 76,110 cubic yards of rock excavation in slip and wall footing, 26,120 cubic yards concrete quay wall in massive blocks, 1600 cubic yards concrete coping wall above water, 2400 cubic yards concrete floor of wharf, 37,750 pounds structural steel, 8200 linear feet fender piles, 31,350 pounds cast-iron mooring posts, 102,000 cubic yards rock filling from excavated material. Specifications, forms of proposals and particulars may be obtained on application to constructing engineer, where plans may be inspected. Certified check for 2 per cent. of amount of bid payable to the Florida East Coast Railway must accompany each bid; usual rights reserved.

Crane.—Noah Webster, care of G. L. Webster & Son, Cambridge, Md., wants a crane.

Crusher.—Battey Machinery Co., Rome, Ga., wants one rock crusher, 20 to 25 tons per hour capacity, with screens, elevators, etc.; prefer second-hand if in good condition.

Crushing Plant.—John N. Adams, Del Rio, Tenn., wants one Blake crusher, 100 tons capacity; one log washer, two sets rolls to reduce to 200 mesh, screens from 50 to 200 mesh; for delivery at Newport, Tenn.

Drainage Work.—Board of Commissioners, First Drainage district, Iberville parish, Island Postoffice, La., will receive bids until December 22 for the following work: Improving and draining district of Iberville parish in accordance with plans and specifications adopted by the Board of Commissioners. The work will require the moving of 75,000 cubic yards. For further information, blanks for making proposals, etc., apply to J. W. Monget, Baton Rouge, La., engineer in charge, or to John Lapeyrollerie, Jr., president; Jules A. Carville, secretary.

Electrical Equipment.—Mozart Water Co., care of Hesse & Kirchner, Inc., 1428 Market street, Wheeling, W. Va., wants quotations on electric motors.

Electrical Equipment.—Consumers' Light & Ice Co., Wm. L. Fredeking, president, Hinton, W. Va., wants two dynamos, 150 to 200 kilowatts, each direct connected.

Electrical Equipment.—Kosciusko Oil Mill & Fertilizer Co., Kosciusko, Miss., wants a 100 to 150-light dynamo, direct current; good second-hand preferred.

Electrical Equipment.—W. W. Pace, Albany, Ga., wants electric motor to operate sand plant having a daily output of 10 cars of 20 tons each. (See Sand Plant.")

Electric-light Plant. — See "Water-works Equipment, etc."

Engine.—E. L. Hardin, Bartlett, Texas, will probably purchase an engine.

Engine.—Kosciusko Oil Mill & Fertilizer Co., Kosciusko, Miss., wants a 10 to 15-horse-power gasoline engine; second-hand in good condition preferred.

Engine and Boiler.—Battey Machinery Co., Rome, Ga., wants 50 to 60-horse-power engine and 75 to 100-horse-power return-tubular boiler; second-hand preferred if in good condition.

Engine and Boiler.—Gibbes Machinery Co., 804 West Gervais street, Columbia, S. C., wants to purchase a traction engine or a portable engine and boiler for plowing rice fields by means of two cable drums on a shaft running transversely under the boiler, arranged so that the drums can be run loose to unwind the cable; the outfit to operate on one bank of a rice field or rice pond and pull gang plows by means of a cable system.

Engine and Boiler.—Estill Sand & Gravel Co., Chamber of Commerce, Nashville, Tenn., wants a 40 to 50-horse-power double-cylinder single-drum wire-rope hauling engine for incline, together with a 50 to 80-horse-power boiler; second-hand in good condition will be considered.

Engine and Boiler.—Noah Webster, care of G. L. Webster & Son, Cambridge, Md., wants a small engine and 60-horse-power boiler; good second-hand.

Engines.—Wanted immediately: One 24x48 or 28x42 left-hand Corliss engine; one 30x60 (or near that size) right-hand Corliss engine with a heavy balance wheel. These engines must be in first-class condition and ready for immediate delivery. Owners please send full specifications and prices by the first letter. Address O. R. Whitney, 39-41 Cortlandt street, New York city.

Engines.—E. A. Wills, Kingsland, Ga., wants addresses of manufacturers of gasoline engines.

Engines.—Mozart Water Co., care of Hesse & Kirchner, Inc., 1428 Market street, Wheeling, W. Va., wants quotations on gas engines.

Engines and Boiler.—John N. Adams, Del Rio, Tenn., wants one 10-horse-power gasoline engine, one 15-horse-power gasoline engine and a 25-horse-power locomotive boiler; delivery at Newport, Tenn.

Excavation Work.—Bids will be received by the water-works committee, C. G. Harrold, chairman, Fort Worth, Texas, until December 15, for excavating for approximately 11,000 feet of ditch for cast-iron water main. Specifications and profile can be seen at office of Water Department, City Hall; usual rights reserved.

Excelsior.—Dume, Son & Co., 105-107 South 3d street, Philadelphia, Pa., want addresses of manufacturers of excelsior.

Ginnery.—Bonnie View Land Co., A. H. Danforth, secretary, Angelus Hotel Building, San Antonio, Texas, will purchase cotton gin.

Ginnery Equipment.—Seth S. Barnes, Marston, Mo., wants three cotton gins, press, etc.

Hoisting Engine. — Galveston Creosoting Co., F. A. Langbehn, president, Galveston, Texas, wants prices on a three or four-drum stationary hoisting engine, 7½x12 inches, 24 horse-power; engine to connect with boiler and be used in pulling from both ends of plant, hence would have to be so constructed as to have drums working in opposite directions.

Hospital Equipment.—Dr. John S. Turner, Terrell, Texas, will purchase equipment and iron beds for a 35-room hospital.

Iron Planer.—See "Machine Tools."

Lampposts.—Bids will be received until December 22 at the office of John B. F. Macfarland, H. L. West and John Biddle, Commissioners, Washington, D. C., for furnishing 28 cast-iron lampposts (total height 15 feet 11½ inches) for Connecticut-avenue bridge. Blank forms of proposal, specifications and all necessary information may be obtained at Room 43, District Building.

Levee Work.—Bids will be received until December 17 at the United States Engineer Office, 1539 Louisiana avenue, New Orleans, La., for constructing about 86,700 cubic yards of levee work in the Lake Borgne levee district. Information furnished on application; J. F. McIndoe, Captain, Engineers.

Loading Plant.—See "Sand Plant."

Lumber.—Bonnie View Land Co., A. H. Danforth, secretary, Angelus Hotel Building, San Antonio, Texas, will purchase lumber.

Macadamizing.—Baltimore (Md.) Board of Awards, City Hall, will receive bids until December 19 for macadamizing driveways and walks at Roland standpipe lot. Plans and specifications may be obtained from Alfred M. Quick, Water Engineer, City Hall.

Machine Tools.—Wanted: A 14-inch-swing turret lathe; new or second-hand. If the latter, must be in good order. Address Box 367, Columbus, Ga.

Machine Tools.—Battey Machinery Co., Rome, Ga., is in the market for a second-hand iron planer, six-foot stroke, 26 inches to 30 inches wide; also a good second-hand medium-size milling machine.

Metal Work.—Bids will be received until January 4, 1907, at the office of the Lighthouse Engineer, Baltimore, Md., for furnishing materials and labor of all kinds necessary for the completion and delivery of the metal work for the Ragged Point lighthouse, Potomac river, Virginia, in accordance with specifications, copies of which, with blank proposals and other information, may be had on application to Lieut.-Col. R. L. Hoxie, Corps of Engineers, U. S. A., Engineer.

Mill Supplies.—J. R. Crawford, Saluda, S. C., wants belting and shafting.

Miscellaneous Supplies. — Bids will be received at office of D. W. Ross, general purchasing officer, Isthmian Canal Commission, Washington, D. C., until December 28 for furnishing by steamer, free of charges on dock at Colon (Atlantic port) or La Boca (Pacific port), Isthmus of Panama, the following: Steel lockers, soil pipe and fittings, valves, bibbs, steel, iron, bolts, lag screws, rivets, tacks, punches, chisels, chain, wire netting, wire, foundry brushes, door hardware, oil cans, manila rope, wool waste, oakum, asbestos tape, leather belting, rawhide leather, locomotive headlights, lamps, torches, safes, window glass, handcarts, sea-coal facing, gas-engine oil, washing powder, office and desk supplies, drafting material, etc. Blanks and general information relating to circular may be obtained at Washington, D. C., or offices of assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Front street, San Francisco, and 410 Chamber of Commerce Building, Tacoma; also from chief quartermaster, Chicago; depot quartermaster, St. Louis; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Atlanta, Ga., and Commercial Club, Mobile, Ala.

Naval Supplies.—Bids will be received until December 18 at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., for furnishing at the navy-yard, Charleston, S. C., a quantity of naval supplies, as follows: Cement-testing machine, scales, etc.; hardware. Application for proposals should refer to Schedule 288. Blank proposals will be furnished upon application to the navy pay office, Charleston, S. C., or to the bureau; E. B. Rogers, paymaster-general, United States Navy.

Office Furniture and Supplies.—D. Blaine Shaw, Barboursville, W. Va., wants dealers' prices on office furniture and supplies, stationery, household furniture, etc.

Oil-mill Machinery.—Selma Oil, Ice & Fertilizer Co., R. W. Barnes, president, Selma, Ala., will probably want to purchase equipment for a 40-ton cottonseed-oil mill.

Paper-box Machinery.—Ashley Manufacturing Co., Newberry, S. C., is in the market for machinery to make paper boxes for hosiery.

Paper-tube Machinery.—Tryon Paper Box Co., F. Pickens Bacon, president, Tryon, N. C., wants machinery for making pasteboard cones and tubes, also information regarding their manufacture.

Paving.—City of Tulsa, I. T., will receive bids until December 25 for construction of 21 city blocks, or about 8400 linear feet of street paving, to be some form of brick paving. Specifications on file in office of W. D. Abbott, City Recorder.

Paving.—J. F. Pittman, Mayor, Thomasville, Ga., will receive bids until December 19 for furnishing all material and labor for approximately 19,300 square yards of street paving; both vitrified brick and bituminous macadam paving will be considered; 6000 linear feet of granite curb; 9300 square yards cement sidewalks. Certified check payable to the Mayor not less than 3 per cent. of bid must accompany each proposal; proposals to be made out on blank forms furnished by the city. Plans and specifications can be seen at office of K. T. Maclean, City Clerk, or H. S. Jaudon, Engineer, Thomasville, Ga., who will mail specifications on application.

Piping.—See "Water-works Supplies."

Piping.—John N. Adams, Del Rio, Tenn., wants one mile of six-inch pipe or casing; delivery at Newport, Tenn.

Planing Mill.—Seth S. Barnes, Marston, Mo., wants planing-mill equipment.

Printing.—W. A. Carver, Rougemont, N. C., will want to contract for printing billheads, letterheads and envelopes.

Printing Plant.—Chas. F. Turner, De Funiak Springs, Fla., wants prices on complete equipment for newspaper plant, including all machinery, type, fixtures, etc. Second-hand machinery will also be considered.

Printery Equipment.—S. A. Eason, Windsor, N. C., wants addresses of manufacturers and dealers in printing presses, type, etc.; quote prices.

Pump.—John N. Adams, Del Rio, Tenn., wants one steam pump, six-inch discharge; delivery at Newport, Tenn.

Pumps.—Mozart Water Co., care of Hesse & Kirchner, Inc., 1428 Market street, Wheeling, W. Va., wants quotations on pumps for water-works.

Railway Equipment.—J. G. Humphrey, Castle, N. C., wants to purchase two or three miles of 12-pound or 16-pound relaying rails; also would lease or probably purchase three to four miles of 25-pound relaying rails.

Sandpapering Machines.—A. G. Kizer, Tazewell, Va., wants addresses of manufacturers of hand machines for sandpapering hardwood floors.

Sand Plant.—W. W. Pace, Albany, Ga., wants to purchase a complete sand plant for loading 10 cars of 20 tons each daily; to be operated by electricity.

Sawmill. — Wanted to purchase small sawmill outfit for 45 horse-power; secondhand in good condition preferred. Address Auburn Mercantile Co., Auburn, Miss.

Sawmill. — Edmond Bulliard, St. Martinville, La., is on the market for a 10,000-foot-capacity band-saw mill.

Screening Plants.—General Building Supply Co., 44 Drayton St., Savannah, Ga., wants addresses of manufacturers of plants for screening concrete and roofing gravel and washing same.

Seating.—J. H. Sumner, Milwaukee, N. C., wants addresses of manufacturers of opera chairs and church benches.

Sewerage System.—Sewerage Commission, Shelbyville, Ky., C. W. Ballard, secretary, invites engineers interested in devising plans for a sewerage system for Shelbyville to visit the city and adjacent country and present to the commission whatever views they may consider feasible and best, looking to the very best plans of sewerage for the city.

Sewerage System.—Street committee of City Council, Annapolis, Md., will receive bids until December 20 for furnishing and laying about 6000 feet of sewering. Plans and specifications can be had by applying to James F. Strange, chairman of street committee. Usual rights reserved.

Stationery.—See "Office Furniture and Supplies."

Steam Plow.—Bonnie View Land Co., A. H. Danforth, secretary, Angelus Hotel Building, San Antonio, Texas, will purchase steam plow.

Tank.—See "Water-works Supplies."

Water-works Supplies. — W. D. Roberts, Graham, Va., wants prices on pipe, hydrants, tank, etc.

Water-works Equipment, etc. — Date for opening bids for material for the construction of water-works and electric-light plant at Waynesboro, Ga., has been changed from December 17 to December 18. Specifications can be secured from the chairman of Water Board, to whom all proposals should be addressed; J. B. McCrary & Co., Atlanta, Ga., engineers in charge. (See issue December 6 under "Water-works Equipment, etc.")

Woodworking Machinery.—J. R. Crawford, Saluda, S. C., wants planer and matcher, wood lathe, jig saw, rip saw, etc.

INDUSTRIAL NEWS OF INTEREST

Timber-Land Salesman Wanted.

A salesman for timber lands is wanted by M. D. Shaw & Co., Wapakoneta, Ohio.

Georgia Farms Offered.

All kinds of farming properties located in Georgia are offered for sale by J. H. Hicks of Clarksville, Ga.

Southern Mineral and Timber Lands.

Buyers of Southern mineral and timber properties are invited to address H. F. Strohecker, Macon, Ga.

Wants Agency for Cement.

The Allen Manufacturing Co., Ltd., Shreveport, La., wants the exclusive agency for a high-grade Portland cement.

Marble Wainscoting and Tiling.

Prices on 5000 feet of tiling and 5000 feet of marble wainscoting are wanted by B. H. Merrimon, Greensboro, N. C.

Coal and Timber Lands.

Coal, timber and farm land investments are offered by the Independence County Bank & Trust Co. of Batesville, Ark.

Wants Tank-Factory Manager.

The management of a tank factory is offered to a man who knows how to build tanks by J. L. S., Box 407, Mobile, Ala.

Grocery Enterprise for Sale.

An established grocery enterprise, said to be earning a good profit, is offered for sale by J. B. Lawrence, South Norwalk, Conn.

Peach Farm for Sale.

A farm of 58 acres, with 40 acres planted in four-year-old peach trees, is offered for sale by E. S. Kane, Box 263, Palestine, Texas.

Building and Roofing Papers.

A Southern salesman is wanted for building and roofing papers. For particulars address No. 49, care of Manufacturers' Record.

Hardwood Timber Lands.

A 1000-acre tract of original-growth hardwood timber land near two railways is offered for sale by W. M. Pratt of Marion, N. C.

Offers Car Sills.

Orders for car sills or similar material are wanted by Jas. A. Dalzell of Mount Pleasant, Fla. He manufactures from long-leaf yellow pine.

A Coal-Development Proposition.

Pennsylvania coal property said to offer good opportunity for immediate development, is offered by Alexander Waite, Reynoldsville, Pa.

A Florida Farm.

A Florida farm of 75 acres, with dwelling, outbuildings and orchard, is for sale. Address Mrs. Lena Britt, 1231 Laurel street, Columbia, S. C.

Willing to Invest.

A traveling salesman wants a position with manufacturer and is prepared to invest some capital. Address No. 50, care of the Manufacturers' Record.

Mills and Timber.

Two timber properties in South Carolina (one including lumber and shingle mill) are offered for sale by George A. Austin, R. F. D. No. 2, Suffield, Conn.

Alabama Timber Land.

The owner of 1840 acres of standing timber (estimated to cut 18,000,000 feet) in Alabama offers the property for sale. Address W. A. Gayle of Montgomery, Ala.

White Oak Trees Offered.

Two hundred thousand white-oak trees 20 inches and up in diameter, accessible to railway, are offered for sale by the Carlisle (Ky.) Real Estate & Timber Co.

Texas Lands Offered.

Lands in all parts of Texas are being offered for sale. Prospective buyers can obtain information by addressing Cage & Masterson, Binz Building, Houston, Texas.

An Industrial Loan Proposition.

The manager of an industrial enterprise wants to increase his holdings of stock and will deposit present holdings as security for a loan. Investigate by addressing No. 46, care of the Manufacturers' Record.

Baltimore Bridge Co.

Mr. Nathaniel Haven, president of the Baltimore Bridge Co., New York offices at 290 Broadway, announces his retirement from the presidency of that well-known enterprise, manufacturer and erecter of bridges.

Appointed Manager of Sales.

A new industrial announcement of the past week is the appointment of H. A. Flagg to be general manager of sales of the Shelby Steel Tube Co. of Pittsburg, Pa. Mr. Flagg is in charge of the New York offices.

A Free Factory Site.

A liberal offer to manufacturers is presented by C. Mendel, Board of Trade Building, Savannah, Ga. He offers free without any conditions a site located on two railways outside of Savannah, for small or large plant.

Edward O. Richardson Forms Company.

Mr. Edward O. Richardson, sales agent for electrical supplies, offices at 1426 Empire Building, Atlanta, Ga., announces that his business will be continued under the title of the Meador-Richardson Company.

Banking by Mail.

Southern banks are among the most prosperous institutions in their section of the country. They include the Pelham State Bank of Pelham, Ga., which offers 5 per cent. interest on savings accounts. Send for booklet entitled "Banking by Mail."

Wants Turret-Lathe Work.

Turret lathe works is wanted by the Stoever Foundry & Manufacturing Co. of Myerstown, Pa. The company has some surplus capacity in 21-inch Gisholt lathes, which it wants to utilize. It will figure on machine work only, or furnish castings also.

Big Contract for Wiring.

One of the largest electric-wiring contracts ever awarded in the South was closed during the past week. The contract amounts to $76,715, and is for wiring the new Capitol at Frankfort, Ky. It was given to Messrs. Jos. McWilliams & Co. of Louisville, Ky.

Fireproof Bank Building.

The First National Bank Building in Kansas City is one of the handsomest buildings in that city both in exterior and interior. It is strictly fireproof, with reinforced-concrete floors, the latter being laid by Messrs. Cudworth, Axtell & Co., Kansas City Life Building, Kansas City, Mo.

A Plow-Works Proposition.

It is proposed to form company to buy a plow works which will be sold next month under mortgage. The promoter is prepared to invest $40,000, and wants to correspond with an experienced man who will join him in this proposition. For details address C. C. Barbour & Co., Vicksburg, Miss.

Plans Wanted for Warehouse.

The Manufacturers' Record is advised by the Allen Manufacturing Co., Ltd., of Shreveport, La., that it wants plans and estimates for the erection of a four-story warehouse 60x150 feet, to be absolutely fireproof. It has not decided whether to build of reinforced concrete or steel and brick.

Brick Works for Sale.

A complete brick works located near Washington is offered for sale. It comprises entire equipment of machinery for an output of 60,000 to 90,000 bricks daily, including scows with a capacity of 50,000 each, and both water and rail transportation is at hand. Address W. F. Chalmers, Box 901, Richmond, Va., for particulars.

Machinery Salesman Seeks Engagement.

An engagement is sought by a machinery salesman of experience. He states he has a large acquaintance and trade in the South and prefers to handle engines, boilers, pumping equipments, supplies or specialties. Address No. 47, care of the Manufacturers' Record.

Mechanical Engineer Seeks Engagement.

A technical graduate (Southern) of 10 years' experience in mechanical, electrical and civil engineering (steam and water-power and electric railways included) seeks an engagement. To communicate with him address No. 48, care of the Manufacturers' Record, Baltimore, Md.

Appointed Supervising Engineer.

The Richardson-Wey Engineering Co., Equitable Building, Atlanta, Ga., has been appointed supervising engineer for the construction of the two steel highway bridges to be built by Fulton and Cobb counties, Ga., across the Chattahoochee river. This company thus adds to its reputation for engineering work in the South.

Big Order for Baltimore Plant.

Expecting further developments of its coal fields in Pennsylvania, the Somerset Coal Co. of Baltimore has placed a big order for railway equipment with a Baltimore plant. The contract calls for $1,000,000 worth of coal-hopper cars, and was recently awarded to the Baltimore Steel Car & Foundry Co. The cars are being delivered at the rate of 25 a day.

The Osborn Engineering Co.

The Osborn Engineering Co., Cleveland, Ohio, has recently associated with it S. Henry Harrison, formerly superintendent of power and machinery of the Vulcanite (N. J.) Portland Cement Co. Mr. Harrison will have charge of cement-plant designing and engineering. The Osborn Engineering Co. is now designing a large cement plant for the Pacific coast.

As to the Follansbee Brothers' Plant.

An erroneous report recently emanating from Follansbee, W. Va., was the statement that the Follansbee Bros.' plant was burned. There has been no fire at the works mentioned, and same is now in full operation, manufacturing American roofing tins. This plant is owned by the Follansbee Bros. Company of Pittsburg, Pa., manufacturer of tinplate, sheet iron, metals, etc.

To Handle Link-Chain Belt.

Machinery dealers and supply companies will be interested in the announcement that the Link-Chain Belt Co. of New York wants to communicate with those who are prepared to handle the company's products. The Link-Chain Belt Co. manufactures a link-chain belt for which especial merits are claimed. Its offices are at 69 Wall street, New York city; M. B. Bloomer, general manager, in charge.

For Southern Brick Manufacturers.

Southern brick manufacturers may be interested in the needs of M. F. Erbs of the Gibraltar Building, Kansas City, Mo. Mr. Erbs states that he is engaged in constructing chimneys and wants to arrange with Southern manufacturers to supply the perforated radial bricks needed. Owners of plants in Mississippi, Alabama and Tennessee, especially, making fire-clay brick and tiles, are invited to correspond.

Must Have Greater Facilities.

Because of the continued rapid growth of its enterprise the Ideal Concrete Machinery Co. of South Bend, Ind., has found it necessary to vacate its present factory building, and has leased the plant formerly occupied by the Bissel Plow Co. This will give three times the present floor space and other facilities which will materially assist in promptly taking care of the increasing demand for "Ideal" concrete machines.

Better Facilities for Piedmont Co.

It is announced that the Piedmont Electric Co. of Asheville, N. C., is occupying new and larger facilities on Patton avenue opposite the city postoffice. This company, now on the principal thoroughfare of Asheville, has 5000 square feet of floor space for its stock and shipping department. It has established a large jobbing trade in electrical supplies as well as a reputation as engineer and contractor for electric-light installations.

Big Order for Portland Cement.

One of the largest orders ever placed in the South for Portland cement is the contract which the Carolina Portland Cement Co. of Charleston, S. C., has obtained from the Sewerage and Water Board of New Orleans. This organization is about to build a ten-million-dollar purification plant and the cement is needed for the construction work. There will be 440,000 bags of cement furnished, and the contract amounts to about $300,000.

National Steel Tube Cleaner.

The salient feature of the National steel tube cleaner is that each blade acts independently of the others, and is so springlike in nature that it conforms very snugly to the surface which is to be cleaned. It can be forced through the tube with very little effort, and each plate removes the particles of sediment or scale within the pipe. Another advantage of this cleaner is that it can be adjusted to fit various sizes of pipe, and if one or more of the blades become broken by rough usage or wear they can be readily repaired at normal expense. The National steel tube cleaner is handled by the H. W. Johns-Manville Company, with branches in all large cities, and it is understood the company is meeting with success in the sale of this device. Offices of Johns-Manville Company are at 100 William street, New York.

Factory Sites in the Southwest.

The demand is increasing for factory sites in the Southwest because of the growth of that section of the country. One of the most progressive cities in the Southwest is Dallas, Texas, and John B. Miller, offices in the Scollard Building, is offering advantageous properties to manufacturers. He quotes at present especially a choice location containing 52,766 square feet of space, with ample railway facilities. Full details on application.

Announcement—Crandall Packing Co.

Consumers of packings for steam, water, air, gas and ammonia are advised that the Crandall Packing Co. of Chicago has changed its Cleveland (Ohio) office from 9 South Water street to 805 Superior street, in the Wade Building. In the new location the company is better placed to take care of the stationary and marine trade handled from the Cleveland office. The Crandall Packing Co. invites inquiries for catalogues in Crandall patent packings.

Company Building Precision Machinery.

Precision machinery is the phrase which the Sloan & Chace Manufacturing Co. of Newark, N. J., uses to indicate its products, now largely in demand and being called for in increasing quantities. A leaflet now being distributed tells about the Sloan & Chace specialties: Bench lathes and attachments, bench-milling machines, bench-drill presses, bench-tapping machines, automatic pinion cutters, automatic gear cutters, etc.

Cement Plant Nearing Completion.

The Kansas City Portland Cement Co. (which was organized about a year ago with a capital of $1,500,000) has made steady progress with its plant at Cement City, Mo., and before long the product will be on the market. It is expected that the output will be 1200 to 1500 barrels per day. The officers of the company are F. E. Wear, president; W. E. Merlin, vice-president and general manager; Arthur L. Murphey, secretary; W. A. Rule, treasurer; offices at 909 Dwight Building, Kansas City, Mo.

Messrs. Rogers, Brown & Co.

The well-known pig-iron and coke firm, Messrs. Rogers, Brown & Co. of Cincinnati, Ohio, announce that Geo. W. Douglas, who for the past two years has been connected with their sales department, will on January 1, 1907, occupy a similar position with their St. Louis office. Mr. Fred W. Bauer, for two years past connected with the St. Louis office of Rogers, Brown & Co., will return January 1, 1907, to Cincinnati and represent the firm in the same territory as before going to St. Louis in 1905.

Memorandum Books for 1907.

People who are interested in injectors are advised that the Ohio Injector Co. of Wadsworth, Ohio, is distributing leather-bound memorandum books for 1907. These reminders of Ohio Injector Co. injectors and lubricators, steam specialties and oiling devices contain useful information for engineers and machinists, maps of the United States and possessions, European countries, rules and tables for calculation, blank pages for memoranda, etc. (The company requests 25 cents in stamps to cover cost of book and postage.)

To Make Locomotive Finishing Materials.

The finishing of gray iron and steel castings for locomotives will be the specialty of the Locomotive Finished Material Co., recently incorporated with a capital of $25,000. This company is using a 100x130-foot building, equipped with modern machinery and tools, and it will purchase its castings in the rough from the John Seaton Foundry & Manufacturing Co. This new enterprise is located at Atchison, Kan. Mr. John Seaton is president and treasurer; Clive Hastings, vice-president, and Harry E. Muchnic, secretary and general manager.

Southern-Built Brick Machinery.

The "New South" brick machinery continues in demand throughout the South. It has been shipped recently to various buyers, one each in Whitney, Fla.; Tallahassee, Fla., and Friars Point, Miss., calling for complete outfit for 25,000 daily capacity; in Summit, Miss., and Mobile, Ala., 40,000 daily capacity each. Other orders were for a No. 5 outfit, shipped to Norfolk; a No. 5 for Winston-Salem, N. C.; automatic end cutter for Atlanta, Ga., and side automatic cutting table

for Richmond, Va. Messrs. J. C. Steele & Sons, Statesville, N. C., manufacture the "New South" brick machinery.

Builds Steel Towers and Tanks.

Steel tower and tank work is much in demand in these days of great industrial activity. Many steel towers and tanks are being built in the South, including those for some extensive improvements under way at Brunswick, Ga. A 100,000-gallon tank and tower (all steel) is being built at Brunswick for the Fore River Shipbuilding Co. (of Quincy, Mass.) by the Chicago Bridge and Iron Works of Chicago, Ill. Another 100,000-gallon steel tank is being built by the Chicago Company for the Atlanta, Birmingham & Atlantic Railroad at Fitzgerald, Ga. This Chicago Company makes a specialty of steel tower and tank work.

Seeks Southern Engineering Contracts.

The continuation of active industrial developments of all kinds in the South is demanding the services of many expert engineers and constructors. Manufacturing plants and power developments especially are calling for such services. In this connection it is of interst to note that the Rhode Island Engineering Co. of Providence, R. I., is seeking Southern contracts. The company designs and constructs textile mills, bleacheries, finishing plants, hydro-electric plants and electrical propositions. It also gives attention to the organization and financial departments of such enterprises.

Southern Hemlock and Spruce Offered

Some valuable timber properties in the South and in Michigan are being offered for sale. They include tracts containing mainly hemlock and spruce, but other woods are also present in abundance. One tract contains 19,000 acres and is located in Virginia; another Virginia tract contains 3000 acres; in North Carolina is a 1400-acre and an 800-acre tract; in Mississippi is a tract including mill with a daily capacity of 15,000 feet. The Michigan property comprises 5500 acres. These several timber offerings are stated to be reached by leading railways. They are offered for sale by Messrs. Smith, Ford & Co., Elmira, N. Y., who will send full particulars to inquirers who contemplate purchasing.

Have You Seen Mardi Gras?

There is no doubt but that New Orleans presents many attractions to the tourist in search of health, recreation and enjoyment, besides being one of the most progressive business municipalities of the entire country and holding a unique position of quaint and historic interest. The Mardi Gras season is approaching and the St. Charles Hotel proprietors are calling attention to this in a carnival calendar. This comes in the form of a leaflet which tells of the season's festivities, culminating on February 12. Another leaflet presented by the same people tells of features of New Orleans, aside from the Mardi Gras, which are attractive. Write Messrs. A. R. Blakely & Co., proprietors of the St. Charles Hotel, New Orleans, La., for copies of the leaflets.

To Sell B. M. Root Saws.

Representation is now assured to the B. M. Root Company of York, Pa., in all the Southern States and in the West. The company announces it located the following agents recently: A. L. Young Machinery Co., San Francisco; Gibbes Machinery Co., Columbia, S. C.; Wyland-Newman Machinery Co., Greensboro, N. C. It is also having a wide sale of its portable saw tables, especially in San Francisco, and has made a shipment of full set of plow-handle machinery to the Frost & Wood Company, Smith Falls, Ontario, Canada. Other plow-handle shipments were to Moline (Ill.) Plow Co., S. R. Sargent & Son, Castleton, Vt.; E. G. Whyers, Jr., & Co., Metropolis, Ill., and Towers & Sullivan Manufacturing Co., Rome, Ga. The B. M. Root Company expects to occupy its new manufacturing plant by January 1.

Enlarging Graham Nut Works.

Because of increasing demands for its products the Graham Nut Co. (with general offices in Pittsburg, works at Neville Island, Pa.) has made arrangements to enlarge its plant to double output. Two brick and steel buildings will be constructed, 60x200 feet and 95x100 feet, in which will be installed entirely new equipment of hot pressed nut machines, cold-punched nut machines and several classes of bolt-heading machines of the latest type. The addition is to be in operation by April 1, 1907. Mr. J. M. Stetter, general superintendent of the Indiana works of the Republic Iron & Steel Co., has resigned and associated himself with the Graham Nut Co., and will be general superintendent of the Neville Island plant, besides having charge of the new construction. The Graham Nut Co. officers are Albert Graham, president; Harry C. Graham, treasurer, and Chas. J. Graham, secretary.

The Hetzel Specialties.

The Hetzel specialties include several products which are in extensive demand. They are being purchased and used throughout this country as well as in Europe, and include Hetzel's rubber cement, rubber paint and elastic roof paint. Their manufacturer claims that these products have inherent qualities recommending them to every discerning buyer of this class of manufacture. The cement is especially suitable for repairing slate, metallic or glass roofs, joining gas pipes and closing joinings and cracks in the covering of walls. The rubber paint serves to cover new metallic roofs of all kinds, insuring them a long existence, and can also be applied with advantage on old roofs previously repaired with Hetzel's rubber cement to increase durability and give the appearance of new roofs. To investigate these products address Hetzel, 67 Maine street, Newark, N. J.

Contracts for Railway Cars.

The shortage of cars to carry freight being experienced by American railway companies is resulting in many orders being placed for new equipment. Southern manufacturing plants are assisting in supplying this market, and the American Car & Foundry Co. is building many cars in its plant at Binghampton, Memphis, Tenn. It is understood that this plant is six months behind in its orders at present. The company has contracts for 565 steel-frame box and gondola cars for the Mexican National Railway, 500 standard freight cars for the Nashville, Chattanooga & St. Louis Railway, 300 standard freight cars for the New Orleans & Northeastern Railway and an order nearly as large for the Gulf & Ship Island Railway, besides many smaller orders for new cars and repair work. One of the large contracts filled at the Binghampton plant this year was 600 freight cars for the Panama Railroad. These cars were shipped "knocked down" and assembled in Panama by men from the Binghampton plant.

A Successful Southern Manufacturer.

The making of iron and steel work for buildings has been engaged in successfully by (among other Southern companies) the Richmond Pattern & Structural Iron Works of Richmond, Va. This company has just completed the steel work in the office building for the Southern Bell Telephone & Telegraph Co. in Richmond. This was finished in less than the contract time and without accident of any character to the workmen. The Richmond company has contract for the steel work for the Chesapeake & Ohio Railway extension in 8th street, Richmond, which calls for over 400,000 pounds of structural steel. Handling and carrying in its yards for immediate shipment all sizes of structural shapes, with its present equipment and new machinery being installed, the company's capacity for handling structural steel work will be very large. The company has a branch office and a skilled force of workmen in Norfolk, in which city it has in the last 12 months erected buildings. In Philadelphia and New York the Richmond Pattern & Structural Iron Works has engineering offices.

Contract for D. E. Baxter & Co.

President M. C. Phillips of the Lake Superior Southern Railway Co., Oshkosh, Wis., has contracted with D. E. Baxter & Co., Inc., of 27 William street, New York, for the construction and equipment of his company's railway from Madison, Wis., to Huron Bay, Mich., 290 miles. This will be a standard single-track road laid with 70-pound A. S. C. E. rail and standard ties, 2640 per mile. Mr. G. S. Brantingham, manager of construction of D. E. Baxter & Co., has returned from a physical examination of the property. This road will open up a heavy freight traffic between Northern Wisconsin and the Fox River valley, where large paper mills are located, and will place the mills in close touch and direct connection with the immense lumber tracts on the line. As the consumption of wood in the pulp mills is enormous, the tonnage of this freight south will be very heavy and will give a northern outlet for the manufactured paper north to the Great Lakes. On the Northern division are timber and iron ore. The Florence mine produces 250,000 tons annually, and there is said to be enough ore in sight to last 20 years. The Mine of Commonwealth produces 200,000 tons annually. Both mines use over 150,000 lineal feet of mining timber annually. At Huron Bay, on Lake Superior, will be located the iron-ore and lumber docks, where shipments can be made by steamer to any point on the Great Lakes.

Heine Safety Boiler Orders.

Orders continue to increase for Heine safety boilers. The builder, Heine Safety Boiler Co. of St. Louis, Mo., reports the following recent contracts: Twenty boilers, 300 horse-power each, for Champion Fiber Co., Canton, N. C.; six boilers, 327 horse-power each, for Torresdale Filtration Works, Philadelphia, Pa. (city plant); two boilers, 300 horse-power, for a dredge boat belonging to Bowers Dredging Co., Galveston, Texas; 120 horse-power, Alabama Great Southern Railway, Birmingham, Ala.; 500 horse-power, Dixie Brewery, New Orleans; 400 horse-power, coal mine in Japan; 550 horse-power, new Japanese fortifications at Port Arthur; 1600 horse-power, American Locomotive Works, Richmond, Va.; 10 boilers, aggregating 4000 horse-power, Dixie Portland Cement Co., Bridgeport, Ala.; 380 horse-power, Citizens' Light, Heat & Power Co., Montgomery, Ala.; 200 horse-power, for a dredge for Ellicott Machine Co., Baltimore, Md.; 600 horse-power, Wm. E. Hooper & Son, Baltimore, Md.; 250 horse-power, Montgomery (Ala.) Ice and Cold Storage Co.; 250 horse-power, Moore Ice Co., Pensacola, Fla.; 750 horse-power, City of Houston, Texas; 250 horse-power, Canton (Ga.) Cotton Mills, and 350 horse-power, Anheuser-Busch Brewing Association, Norfolk, Va. (repeat order).

Designing Reinforced Concrete Buildings.

Messrs. Ballinger & Perrot, architects and engineers, 1200 Chestnut street, Philadelphia, designed for Bernard Gloekler Company, 1623 Pennsylvania avenue, Pittsburg, an office, factory and warehouse building of reinforced concrete, now about half completed. The building is 80x100 feet, 10 stories high, with basement. The column, floor and roof construction is of reinforced concrete throughout. The walls are of monolithic concrete. The building is equipped with wireglass windows, two tower fire-escapes, with automatic sash, one passenger elevator, two large freight elevators, two 5000-gallon hose-supply tanks and one 20,000-gallon sprinkler tank. The chimney will be 165 feet high, constructed of reinforced concrete, 48 inches inside diameter. The reinforced-concrete warehouse of the Victor Talking Machine Co., Camden, N. J., for which Ballinger & Perrot were architects and engineers, is now practically completed. This structure is 152x123 feet, four stories, with provision for two additional stories. The column, floor and roof construction is of reinforced concrete, walls of brick, coping and sills of bluestone. The lintels over the door and window openings are of concrete. The exposed fronts will be fitted with wireglass windows. The building is equipped with two freight elevators and boiler accommodations, including washrooms and lockers on each floor. The boiler-room is located in the basement.

Regarding the Callahan Engine.

Those interested in power engines are advised that the Callahan engine, manufactured by W. P. Callahan & Co., Dayton Ohio, is the engine that has been marketed for the past 10 years by the Fairbanks Company of New York, under the title of "The Fairbanks." The agreement existing between W. P. Callahan & Co. and the Fairbanks Company has been discontinued, and in the future the Callahan engine will be marketed direct by its manufacturers. W. P. Callahan & Co. are among the oldest manufacturers of gas engines in this country, having been manufacturing special machinery in their present location for nearly 50 years, and gasoline engines for about 10 years. Among the claims made for their engine is that it will operate under either manufactured or natural gas, producer gas, gasoline, benzine, naphtha or distillate, and that it is a very economical engine to operate. The company guarantees that the material and workmanship of each engine is first class in every particular, and, if under proper care and treatment, any defects develop within one year, new parts will be furnished without charge. The standard Callahan engine is built in units from 4 to 200 pounds, single and twin cylinder, while the "Callahan, Jr." —a new type just being introduced—will be supplied in sizes from 3 to 15 pounds. The agents offering Callahan engines include the Atlanta Utility Co. of Atlanta, Ga., operating in Georgia and South Carolina, and John G. Duncan of Knoxville, Tenn., representative in Eastern. Some desirable territory remains to be represented.

Electrical Equipment for Iron Mines.

The new power plant which Witherbee, Sherman & Co. are erecting on Lake Champlain at Port Henry, N. Y., furnishes an interesting example of the growth of electricity in mining. The various shafts of the firm yield from 500,000 to 600,000 tons of iron ore yearly, while with the new electrical equipment the ultimate output will be 1,000,000 tons. As the principal shafts of the mines are scattered over a considerable area, electricity has been found to be the most flexible form of power transmission. Power is generated both by water and steam. At Mineville there is a steam plant with a 750-kilowatt engine-driven generator, which supplies current at 3300 volts for local distribution. This power is supplemented by two small water-power plants—a 300-kilowatt water-wheel driven generator unit at Wadham's Mills, and a 370-kilowatt unit at Kingdom, eight miles from this point. At Wadham's Mills a Morgan-Smith water turbine is operating under a 48-foot head. Power at Kingdom is furnished by a Pelton impulse wheel under a head of 290 feet, water being carried through a 32-inch pipe a distance of one and an eighth miles from reservoir. These stations are about 11 miles from Mineville and deliver current at Mineville at a potential of 6000 volts. This voltage, made desirable because of the saving in transmission, is stepped down to 3300 at Mineville, and is used in conjunction with the 750-kilowatt 3300-volt steam-driven machine to supply power at the various shafts. Induction motors are used for driving hoists, pumps, air-compressors, etc., operated at 25 cycles and 440 volts. The new powerhouse is six miles from the mines. It will be interconnected with the other sources to supply the increasing demand for power. The station is to be thoroughly modern, being built of monolithic reinforced concrete. Not only the building, but the stack will be constructed of this material. "Iron Clad" Portland cement, manufactured by the Glens Falls Portland Cement Co., will be used, mixed with tailings from the mines. Fireproof construction will be employed throughout, and the station is to be a typical example of the use of this building material. The structure is planned after the Roman style of architecture; main building containing boilers is 116x54 feet, while the turbine-generator room is 39x59 feet, and extends at right angles from center of main structure. By making use of the Curtis turbine much floor space is saved and the building is compactly constructed. Steam will be generated by four 500-horse-power Babcock & Wilcox boilers, arranged in pairs on either side of a 175-foot stack, occupying the center of the powerhouse. There is space for two more boilers of the same capacity, one at the side of each pair. The boilers are hand-fired, and coal is conveyed to each by a car on a track running the length of the building. This car is filled from an overhead hopper through a hinged chute. The hopper is filled by a vertical bucket conveyor, which carries the coal from a pit filled directly from cars outside the building. The generating equipment comprises an 800-kilowatt Curtis steam-turbine generator, which will deliver current directly to the line at a potential of 6000 volts and 25 cycles. The compactness of the vertical unit has permitted a remarkably economical dispostion of machinery in the generating room. Space is left for the installation of a second turbine, which will probably be installed at once. The switchboard is located in a gallery with a reinforced concrete floor. On this floor is placed also the motor-driven exciter sets, and space is available for two frequency changer lighting sets. A supplementary exciting unit is provided by a 25-kilowatt horizontal Curtis steam-turbine generator. The entire electrical equipment for this powerhouse will be furnished by the General Electric Co. of Schenectady, N. Y.

TRADE LITERATURE.

New Panel Boxes.

An illustrated leaflet just issued by the H. T. Paiste Company of Philadelphia tells of that manufacturer's latest specialties in the form of panel boxes for electrical work. This company has become well known for its products used in the electrical fields, and people who are interested in panel boxes should not fail to investigate the designs offered.

For Gas Plants.

A little leaflet issued by the Gas Bench Construction Co. of St. Louis, Mo., calls attention to the fact that its benches are built of "Christy" refractories—referred to as the highest grade and most perfect material manufactured. It mentions the efficiency of these benches in a brief yet pointed manner that will prompt investigation on the part of managers of gas plants or those who contemplate building such plants.

"Little Jap" Hammer Drill.

Bulletin No. 2011—The "Little Jap" Hammer Drill—is being distributed. It tells of the hammer drill, which is becoming as in-

dispensable for the lighter work of all rock excavation as is the heavier piston drill for the heavier service. Both are economic necessities in the mine, tunnel, shaft, quarry and contract of today. The "Little Jap" is a standard machine of this class, and its construction, operation and advantages are fully discussed in the bulletin. This drill is made by the Ingersoll-Rand Company, 11 Broadway, New York.

The December "Graphite."

There are a number of interesting articles on timely subjects in the December *Graphite*. They refer to automatic stokers, the invention of the telephone, wonders of water, danger in air-compressors, explosion of stove blaking, graphite in winter, graphite productions for street railways, etc. People who are interested in the use of graphite for any purpose should not fail to be acquainted with the data of value published in *Graphite* from time to time. Send for the December number, addressing the Joseph Dixon Crucible Co., Jersey City, N. J.

Sullivan Air Compressors.

A booklet now being distributed by the Sullivan Machinery Co. affords an idea of the scope of the company as a manufacturer of air compressors. Description is restricted to mention of characteristic features of the several types, and the tables show only the more popular sizes and their important dimensions. A complete catalogue, containing many illustrations and much information of value to users of compressed air, is published concerning the three general types noted in the booklet. Users of air compressors should write for one of the booklets. The Sullivan Machinery Co. has its main offices in the Railway Exchange, Chicago.

Concerning Modern Sanitary Fixtures

"A half-hour's inspection of our showrooms will post your client on modern sanitary fixtures more thoroughly than half a day spent in looking over catalogues. We want you to feel at perfect liberty to use these showrooms in any way that may be of service to you. Our model bathrooms may offer suggestions that will at least absolve you from the occasional complaint: 'I didn't know it was going to look like that.'" The foregoing is the message conveyed to the plumbing trades in an attractive illustrated pamphlet issued by the Haines, Jones & Cadbury Company of Philadelphia, the well-known manufacturer of plumbing supplies.

All That Belting Should Be.

The essential requisites for belting are strength, driving power and durability. Having these factors, a belting is all it should be. The Ruboil Belting Co. announces that Ruboil belting combines those desirable qualities, and refers to its average tensile strength as 6490 pounds per square inch section. Ruboil belting has great driving power, and under heavy service has proved very durable. It offers great resistance to the acids used in various manufacturing establishments and is suitable for all kinds of industrial work. The Ruboil Belting Co., manufacturer of Ruboil belting, is of 179 Summer street, Boston, Mass.; The Bourse, Philadelphia, Pa.; New York city and Newark, N. J.

Niagara Metal Stampings.

An illustrated pamphlet now being distributed is interesting to those who are manufacturing anything requiring the use of parts made of sheet iron, steel, brass, copper, zinc or aluminum or of wire of any of these metals. It tells of the facilities of a company which offers hardware specialties of the character indicated, a company which by the use of dies in power presses cuts from sheet metal of any kind pieces of almost any shape. A number of these products are shown in the pamphlet and the exact scope of the work that can be undertaken for manufacturers is pointed out. The pamphlet is Catalogue No. 5 of the Niagara Falls Metal Stamping Works of Niagara Falls, N. Y., which is the company above mentioned.

Cementology for November.

The November number of Cementology is an index of Volume I and Volume II of that publication. It indexes the various subjects which have been discussed. While these discussions have been brief, it is believed they have been lengthy enough to permit of a clear understanding of the points desired to be covered. The discussions were based upon extensive technical research by the American Society of Civil Engineers, the Society for Testing Materials and the practical experience of the Whitehall Portland Cement Co., Philadelphia, Pa. Contractors, engineers and architects have found these discussions of value, and those who are not acquainted with previous issues of Cementology are invited to ask the Whitehall Portland Cement Co. for a copy of the November number. This will enable them to see the extent to which the subject has been covered.

Modern Mail Chutes.

One of the useful improved equipments installed in modern office buildings is the mail chute. People who occupy large buildings or even small structures in which mail chutes have been installed are well aware of their convenience and usefulness. The manufacturer of these mail chutes and automatic mail-delivery apparatus has become a specialty among the leading makers, being the Automatic Mail Delivery Co., Times Building, New York. This company issues two illustrated pamphlets describing in an interesting manner its products. Its publications should be seen by architects, building constructors and building owners who want to keep informed regarding perfected mail chutes and kindred devices.

Head-Gate Hoists.

The question of head-gate hoists in connection with water-power developments is one entitled to consideration both by manufacturers and users of water-power. Because of the importance of this question it has been covered in an illustrated pamphlet recently issued by the Dayton Globe Iron Works Co. of Dayton, Ohio. This publication is pamphlet "Q," and it describes the company's hoisting mechanism for head gates, waste gates, etc. The attention of owners of water-power is called to the importance of providing good, substantial head gates, with reliable apparatus for handling them. It may become necessary at almost any moment to shut the water out of a forebay or feeder pipe to turbine, and unless the head gates can be operated quickly great loss or damage may result. How to prevent this loss by using perfected devices is told in the pamphlet.

Nagle Engines and Boilers.

The Nagle engines and boilers are described in catalogue No. 50 of the Nagle Engine and Boiler Works, Erie, Pa. Various styles and sizes are illustrated, and by adopting these as standard the company is enabled to build to advantage and carry in stock for immediate shipment an extensive line of both engines and boilers, embracing a large range of styles and sizes suitable for every service. These specifications represent the results of many years' experience in building steam engines and boilers, improved from time to time as modern practice advanced, and new styles are added as shown by the requirements of the purchasing public. In addition to these engines and boilers, the Nagle Engine and Boiler Works builds Corliss engines and high-pressure boilers, separate catalogues of which are issued. The Nagle manufacturing plant has been greatly extended during recent years, and it is now fully equipped to meet any demands that may be made on it.

Mietz & Weiss Gas and Oil Engines.

Power users who want to keep posted regarding the latest-improved gas and oil engines should not fail to examine the specifications of and the claims made for the Mietz & Weiss gas and oil engines built by August Mietz Iron Foundry and Machine Works, 128-138 Mott street, New York. These power machines are fully described in catalogue A42 now being distributed. They are made in stationary and marine designs from 1½ to 100 horse-power, and have become well known throughout the country for their efficiency in all kinds of industrial work. Not only as to efficiency, but also as to those desirable factors known as economy and durability have these gas and oil engines established a reputation among discerning users of power machines consuming gas and oil as fuel. The marine oil engines built by the August Mietz Company are described in detail in a separate publication known as catalogue M5. People who need marine engines for power purposes will find they are serving their best interests by investigating these marine engines before placing their contracts.

The Franklin Air Compressors.

People interested in air-compressing machinery are advised of the issuance of a catalogue devoted exclusively to a detailed description of the Franklin air-compressors. This is a book of 116 pages, containing illustrations with full detailed descriptive list of over 100 sizes and styles of Franklin air-compressors, manufactured by the Chicago Pneumatic Tool Co. Constructive principles are described in detail and information not hithtypes of compressors, including Corliss, motor-driven, gas-engine-driven and new pattern compressors of larger capacities. The catalogue devotes considerable space to pumping by compressed air, describing the new Chicago waterlift and furnishes practical information and advice to all compressed-air users, and especially those contemplating the introduction or enlargement of compressed-air equipment. Numerous interesting tables and formulas complete the contents of this valuable contribution to compressed-air literature, which should be in the hands of all interested in the subject. The book is mailed free upon application to the Chicago Pneumatic Tool Co. at its principal offices in Chicago or New York, or to any of the branches in the larger cities.

Milliken Structural Steel.

There has been issued a pamphlet (in advance of a complete handbook now being compiled) to show the sections of structural steel rolled at present by the new steel mill of Milliken Bros. (Inc.). Other sections will be added and information regarding them published in the handbook. The latter will contain information regarding structural steel and other materials of construction, including illustrations of typical details, examples of methods of calculation, complete American and metric tables, mathematical tables and formulae, and other data of use to buyers, architects and engineers in the selecting and detailing of structural steel work in particular and construction work in general. The product of the steel plant at present consists of open-hearth billets, blooms, slabs, I-beams, channels, angles, Z-bars and bars and flats, as shown in the pamphlet. The rolled sections are the standard structural shapes adopted by the American Society of Steel Manufacturers, with the exception of the 18-inch channel, which is an entirely new section of standard proportions. This channel will be of great value in the construction of heavily loaded columns and bridge chords, where a large radius of gyration is essential to economy of design. Messrs. Milliken Bros. have their general offices at No. 11 Broadway, New York, where requests for the pamphlet are invited.

Testifying to a Pump's Merits.

Last week the Manufacturers' Record referred to the steam pump, quick-cleaning strainers and foot valves manufactured by the Emerson Steam Pump Co. of Alexandria, Va. That company issues a pamphlet which is of especial interest in connection with the Emerson pump and its accompanying attachments. The pamphlet presents copies of letters from discriminating users of pumping machinery who have installed Emerson equipments and obtained satisfaction. The character of these users may be indicated by stating that they include James H. Sears, U. S. N., inspector Eighth Lighthouse District, New Orleans; Laurin & Leitch, engineers and contractors, Montreal; George G. Earl, superintendent Sewerage and Water Board, New Orleans; W. R. Bonsal & Co., contractors, Wilson, N. C.; Cooke & Laurie Contracting Co., Montgomery, Ala.; Walton & Wilson, general contractors, Knoxville, Tenn.; Black & Laird, general contractors, New Orleans; A. M. Woodbury, superintendent American Pipe Manufacturing Co. of Philadelphia; Douglas, Gilmor & Co., general contractors, Baltimore; John H. Campbell of Washington, D. C., superintendent Penn Bridge Co. of Beaver Falls, Pa.; Sydnor Pump & Well Co., Richmond; United Zinc Companies, Joplin, Mo.; Red Lodge Coal Co., Red Lodge, Mont.; Aetna Cement Plaster Co., Kansas City; North Shore Power Railway & Navigation Co., Clarke City, Canada, and others. That such well-known individuals, firms and corporations in various branches of industry should recommend a device is highly creditable to its manufacturer.

Chimney Versus Mechanical Draft.

The relative liability to derangement of a chimney as compared with a mechanical-draft apparatus is thus discussed by J. H. Kinealy in his recent work entitled "Mechanical Draft:" "Every engineer knows there is nothing about a chimney to get out of order—no machinery of any kind and no moving parts—and the only way a chimney can be put out of service is for it to fall. Thin-guyed, sheet-steel chimneys rust out quite rapidly and then are easily blown over; self-supporting steel chimneys, either lined or unlined, usually have a much longer life, the length of which depends naturally upon the thickness of the metal of which they are made and the care given to them; brick or stone chimneys when well built last practically forever, and when properly designed and erected do not fall unless struck by lightning or a cyclone. A mechanical-draft aparatus, however, always comprises, in addition to the fan or blower, a motor of some kind for driving the fan or blower, so that there are moving parts, any one of which is liable to give trouble. In fact, a mechanical-draft apparatus is a machine, liable to all the accidents and ills of a simple machine, and because of this fact it is necessary, when the draft depends entirely upon the mechanical-draft apparatus and there is no chimney to fall back upon in case of an accident to the fan or its motor, to install duplicate fans and motors. When, however, there are duplicate fans and motors of the proper size there is no more danger of a mechanical-draft apparatus being put entirely out of service or becoming so deranged as to cause a shut-down of the entire power plant than there is in the case of a chimney of brick or stone." The B. F. Sturtevant Company of Boston, Mass., invites inquiries for literature on this subject.

Nature's Insulation.

The term insulation, as applied to a refrigerated building or room, refers to the materials composing the walls, which prevent to a greater or less extent the passage of heat from the outside atmosphere into the cooled space. The prime importance of suitable materials of which to compose the insulation is evident. As in many other ways, nature has been called upon to furnish the materials and indicate the best way to proceed in applying them to the protecting of cold rooms against heat. Hair is nature's insulation, but it is not practical to use it (furs and woolens) for the insulation of cold-storage rooms. But there is offered a substitute said to possess all the non-conducting properties of fur and wool, and at a price that is commercially practicable. This article is known as hairfelt. It is put up in accurate dimensions and is easily applied. Its manufacturers state that it has proved by thorough tests to possess better insulating properties, thickness for thickness, than any other material in common use. When made into a compact mass, as in the American hairfelt, benefit is derived not only from the air cells contained in the air itself, but the interlacing of a vast number of hairs, all arranged by a careful method of manufacture into a uniform thickness of felt, holds between the hairs much air in closely confined and very small cavities. An illustrated pamphlet entitled "Nature's Insulation" describes in detail this method and material for insulation. It tells all about its manufacture, presents tables of insulation tests, also diagrams of walls and floors, photographic views of buildings and refrigerator cars and steamships in which American hairfelt has been use. Messrs. Baeder, Adamson & Co., Philadelphia, Pa., are the manufacturers of American hairfelt, also of glue, sandpaper, curled hair, emery paper, garnet paper, emery cloth, etc., and have been devoting their energies to these specialties for 75 years. They will send you a copy of "Nature's Insulation."

Modern Steel-Concrete Chimneys.

When a certain company was organized several years ago for the purpose of constructing reinforced concrete chimneys exclusively (several valuable patents having been obtained) it did not anticipate so marked a success as has been achieved. Today this company has offices throughout America and Europe, and its facilities for handling a large amount of business are almost unlimited. This success is evidently due to the merits of the chimney combined with the company's ability to handle the contracts offered. The Weber Steel-Concrete Chimney Co., general offices, 929-934 Marquette Building, Chicago, is the company referred to. Its chimneys have become well known to manufacturers, power-plant operators and others who require chimneys in their field. In all parts of the United States these chimneys may be seen performing their functions. The advantages which the company claims for the Weber chimneys may be briefly summarized as follows: They are monolithic, one solid single piece of superior stone from foundation to crown without any joint or interruption; absolutely air tight, the flue of uniform diameter, being almost perfectly smooth; can be erected in less time than a brick or steel chimney; occupies smaller space, the saving of room being of importance in a modern steam plant; they are light in weight, of considerable importance where the natural ground has a limited carrying capacity; they resist chimney gases and heat; materials used in constructing these chimney are cement, sand and steel bars; selected materials, strong steel reinforcements with the monolithic nature of the chimneys makes them capable of resisting a continuous heat up to 1500 degrees F. without injury. A publication which the Weber Steel-Concrete Chimney Co. is now distributing will interest everyone who uses or will have occasion to use a chimney. It details the method of construction, the materials used, and presents numerous photographic views of Weber chimneys erected for prominent companies throughout the United States. Requests for copies are solicited.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., December 12.

With the exception of some active trading in United Railways issues, the Baltimore stock market during the past week was quiet.

In the trading United Railways common sold from 15 to 14⅝; the trust certificates at 15; the income bonds from 60¼ to 58¼; the funding 5s from 87 to 87¾; the funding scrip from 87⅛ to 87½, and the 4 per cents from 89 to 88½. Consolidated Gas, Electric Light & Power preferred was dealt in at 80½ to 81; Seaboard new common at 23½; the second preferred at 50¼ to 50; Seaboard 4s at 82⅜ to 82; the 10-year 5s from 100¼ to 99⅞; Cotton Duck 5s from 84¼ to 84; G.-B.-S. Brewing incomes from 33⅛ to 33; do. 1sts, 58¾ to 58.

Bank stocks sold as follows: National Bank of Baltimore, 118; Maryland, 20; Mechanics', 26½; Commercial and Farmers', white certificates, 120; Old Town, 11⅞; Merchants', 180.

Fidelity & Deposit sold at 129½; Maryland Casualty, 60; Maryland Trust preferred, 110; Baltimore Trust, 334; Mercantile Trust, 138.

Other securities were traded in as follows: Atlantic Coast Line 4s, 97½ to 97⅛; Georgia & Alabama Consolidated 5s, 109¾ to 110¼; Maryland 3s, 97¼; Baltimore City 3½s, 1930, 101¼; Atlantic Coast Line of Connecticut, 330 to 326; Consolidated Gas, Electric Light & Power, 37½; Anacostia & Potomac 5s, 103¼; Coal & Iron Railway 5s, 105⅜; Macon Railway & Light 5s, 98; Baltimore Traction 5s, 112; West Virginia Central 6s, 104⅞; Baltimore Refrigerating & Heating, 28½ to 30½; Atlantic Coast Line of Connecticut 5s, certificates, 110 to 111; Georgia Southern & Florida 2d preferred, 84¼; Norfolk Railway & Light 5s, 97⅞; Northern Central, 108¾ to 111¼, reacting to 108, last sale at 109; Georgia, Carolina & Northern 5s, 110¼; Western North Carolina 6s, 112¾; Georgia Southern & Florida 5s, 112; Lexington Railway 5s, 100; Baltimore Brick 5s, 80½ to 80⅜; Alabama Consolidated Coal & Iron preferred, 92; Atlanta Consolidated Street Railway 5s, 106½; Wilmington & Weldon 5s, 117⅛; Baltimore Brick common, 4½ to 5; Georgia Southern & Florida 1st preferred, 98; Charleston Consolidated Electric 5s, 93; City & Suburban 5s (Baltimore), 108¼.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended December 12, 1906.

	Par.	Bid.	Asked.
Railroad Stocks.			
Atlantic Coast	100	175	...
Atlantic Coast of Connecticut	100	326	330
Georgia Sou. & Flordia	100	36	37½
Georgia Sou. & Fla. 1st Pfd.	100	97	99
Georgia Sou. & Fla. 2d Pfd.	100	82	85
Maryland & Pennsylvania	100	...	34½
Seaboard Air Line Pfd.	..	40	...
Seaboard Company Common	100	23½	30
Seaboard Company 2d Pfd.	100	50	51
United Rys. & Elec. Co.	50	14⅜	14¾
Bank Stocks.			
Citizens' National Bank	10	...	32
Commercial & Far. Nat. Bank	100	115	120
Com. & Far. Nat. Bk., Blue Cifs.	100	130	131
First National Bank	100	138	143
Maryland National Bank	20	...	20½
National Bank of Baltimore	100	118	...
National Bank of Commerce	15	27	...
National Exchange Bank	100	...	18½
National Howard Bank	10	12½	...
National Marine Bank	30	39½	40
Third National Bank	100	...	128
Trust, Fidelity and Casualty Stocks.			
American Bonding & Trust	50	43	50
Baltimore Trust & Guar.	100	335	340
Fidelity & Deposit	50	132	133
Maryland Trust	100	92½	96
Maryland Trust Pfd.	100	109	110
Mercantile Trust & Deposit	50	138	139
Safe Deposit & Trust	100	445	...
Union Trust	50	55	...
U. S. Fidelity & Guaranty	100	112	115
Miscellaneous Stocks.			
Ala. Con. Coal & Iron	100	...	61½
Ala. Con. Coal & Iron Pfd.	100	93	93½
Con. Cotton Duck Common	50	12	13
Con. Cotton Duck Pfd.	50	33	34
Con. Gas, Elec. Lt. & P. Com.	..	37	38
Con. Gas, Elec. Lt. & P. Pfd.	..	81	85
G.-B.-S. Brewing Co.	100	7½	8½
Mer. & Miners' Trans. Co.	100	185	...
Railroad Bonds.			
Atlanta & Charlotte 1st 7s, 1907		103¼	103¾
Atlantic Coast Line 1st 4s, 1952		97	97¼
Atlantic Coast Line 4s, Ctfs., 1952		...	89
Atlantic Coast Line (Conn.) 5s		108¼	...
Atlantic Coast Line (Conn.) 4s		...	92
Central of Georgia 2d Inc.		76	...
Charleston & West. Car. 5s, 1946		109¾	110½
Coal & Iron Railway 5s, 1920		...	105½
Georgia & Ala. 5s, 1945		110	110½
Georgia, Car. & North. 1st 5s, 1929		110¼	...
Georgia Sou. & Fla. 1st 5s, 1945		112	113
Maryland & Pennsylvania 4s, 1951		91¾	92½
Raleigh & Augusta 5s		113	...
Seaboard Air Line 4s, 1950		81¾	82
Seaboard Air Line 5s, 10-year, 1911		99⅞	100⅛
Southern Rwy. Con. 5s, 1994		111	112¼
Suffolk & Carolina 5s, 1952		99⅛	...
West. Va. Cen. 1st 6s, 1911		107	108
Wilmington, Col. & Aug. 6s, 1910		105	...
Wilmington & Wel. Gold 5s, 1935		117	118
Street Railway Bonds.			
Anacostia & Potomac 5s, 1949		102½	103½
Atlanta Con. St. Rwy. 5s		106	...
Augusta Rwy. & Elec. 5s, 1940		100	...
Baltimore Traction 1st 5s, 1929		111	113
Central Ry. Con. 5s (Balto.), 1932		112¼	...
Charleston Con. Elec. 5s, 1969		92½	93½
City & Suburban 5s (Wash.), 1948		108¼	108½
Knoxville Traction 1st 5s, 1928		105½	107½
Lexington Rwy. 1st 5s, 1949		100	100¼
Macon Rwy. & Lt. 1st Con. 5s, 1953		96½	98¼
Norfolk Railway & Light 5s		97⅜	97⅞
North Baltimore 5s, 1942		115	...
United Railways 1st 4s, 1949		88¼	88⅝
United Railways Inc. 4s, 1949		58¼	...
U. Rys. Inc. 4s, 1949, Unassented		63⅜	70⅛
United Railways Funding 5s		87¼	87½
Miscellaneous Bonds.			
Ala. Con. Coal & Iron 5s		...	92¼
Con. Gas 6s, 1910		105¾	...
Con. Gas 5s, 1939		109½	...
Con. Gas, Elec. Lt. & P. 4½s		...	85
G.-B.-S. Brewing 1sts		58	58½
G.-B.-S. Brewing 2d Incomes		32½	33
Mt. V. & Woodb'y Cot. Duck 5s		84	84½
United Elec. Lt. & Power 4½s		93¼	...

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending December 10.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	94	95
Aiken Mfg. Co. (S. C.)	80	87½
Anderson Cotton Mills (S. C.)	...	100
Arkwright Mills (S. C.)	...	122
Augusta Factory (Ga.)	80	85
Avondale Mills (Ala.)	109	116
Belton Mills (S. C.)	106	110
Bibb Mfg. Co. (Ga.)	...	122
Brandon Mills (S. C.)	120	...
Cabarrus Cot. Mills (N. C.), new	129	130
Chadwick Mfg. Co. (N. C.) Pfd.	...	102
Chiquola Mfg. Co. (S. C.)	99	100
Clifton Mfg. Co. (S. C.)	122	124
Clifton Mfg. Co. (S. C.) Pfd.	102	103
Clinton Cotton Mills (S. C.)	150	...
Columbus Mfg. Co. (Ga.)	96	101
Courtenay Mfg. Co. (S. C.)	...	100
Dallas Mfg. Co. (Ala.)	92	95
Darlington Mfg. Co. (S. C.)	59	61
Eagle & Phenix Mills (Ga.)	129	...
Easley Cotton Mills (S. C.)	132	136
Enoree Mfg. Co. (S. C.)	...	80
Enoree Mfg. Co. (S. C.) Pfd.	99	101
Enterprise Mfg. Co. (Ga.)	86	92
Exposition Cotton Mills (Ga.)	200	...
Gaffney Mfg. Co. (S. C.)	89	90
Gainesville Cotton Mills (Ga.)	37	40
Granby Cot. Mills (S. C.) 1st Pfd.	...	55
Graniteville Mfg. Co. (S. C.)	...	160
Greenwood Cotton Mills (S. C.)	90	91
Grendel Mills (S. C.)	115	117
Henrietta Mills (N. C.)	200	...
King Mfg. Co., John P. (Ga.)	97	103
Lancaster Cotton Mills (S. C.)	105	107
Lancaster Cot. Mills (S. C.) Pfd.	97	100
Langley Mfg. Co. (S. C.)	92	96
Laurens Cotton Mills (S. C.)	...	166
Limestone Mills (N. C.)	115	...
Lockhart Mills (S. C.)	...	101
Lockhart Mills (S. C.) Pfd.	97	100
Louise Mills (N. C.)	90	95
Louise Mills (N. C.) Pfd.	...	102
Marlboro Cotton Mills (S. C.)	87	91
Mayo Mills (N. C.)	165	185
Mills Mfg. Co. (S. C.)	100	105
Mills Mfg. Co. (S. C.) Pfd.	99	101
Monaghan Mills (S. C.)	96½	101
Monarch Cotton Mills (S. C.)	102	...
Newberry Cotton Mills (S. C.)	122	...
Norris Cotton Mills (S. C.)	108	110
Olympia Cot. Mills (S. C.) 1st Pfd.	...	80
Orangeburg Mfg. Co. (S. C.) Pfd.	80	97
Orr Cotton Mills (S. C.)	101	104
Pacolet Mfg. Co. (S. C.)	180	190
Pacolet Mfg. Co. (S. C.) Pfd.	101½	104
Pelzer Mfg. Co. (S. C.)	170	173
Piedmont Mfg. Co. (S. C.)	170	177
Poe Mfg. Co. (S. C.)	120	125
Richland Cotton Mills (S. C.) Pfd.	...	52½
Raleigh Cotton Mills (N. C.)	99	105
Roanoke Mills (N. C.)	...	140
Saxon Mills (S. C.)	108	108½
Sibley Mfg. Co. (Ga.)	64	68
Southern Cotton Mills (N. C.)	...	80
Spartan Mills (S. C.)	145	150
Springstein Mills (S. C.)	...	100
Trion Mfg. Co. (Ga.)	130	142
Tucapau Mills (S. C.)	175	...
Union-Buffalo Cot. Mills 1st Pfd.	75	90
Victor Mfg. Co. (S. C.)	120	125
Warren Mfg. Co. (S. C.)	99	100
Warren Mfg. Co. (S. C.) Pfd.	105	107
Washington Mills (Va.)	20	25
Washington Mills (Va.) Pfd.	100	115
Whitney Mfg. Co. (S. C.)	145	150
Wiscassett Mills (N. C.)	122	125
Woodruff Cotton Mills (S. C.)	110	125

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending December 10.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	...	95
Aetna Cotton Mills (S. C.) Pfd.	...	70
Aiken Mfg. Co. (S. C.)	83	89
American Spinning Co. (S. C.)	120	125
Anderson Cotton Mills (S. C.)	99	103
Arcadia Mills (S. C.)	97	100
Arkwright Cotton Mills (S. C.)	117	...
Augusta Factory (Ga.)	80	85
Avondale Mills (Ala.)	100	...
Belton Mills (S. C.)	104	108
Bibb Mfg. Co. (Ga.)	...	115
Brandon Mills (S. C.)	120	...
Brogon Mills (S. C.)	77	80
Cabarrus Cotton Mills (N. C.)	120	...
Chadwick Mfg. Co. (N. C.) Pfd.	...	103
Chiquola Mfg. Co. (S. C.)	97	100
Clifton Mfg. Co. (S. C.)	120	125
Clifton Mfg. Co. (S. C.) Pfd.	...	103
Clinton Cotton Mills (S. C.)	140	145
Columbus Mfg. Co. (Ga.)	94	97
Courtenay Mfg. Co. (S. C.)	...	100
Dallas Mfg. Co. (S. C.)	90	...
Darlington Mfg. Co. (S. C.)	60	65
D. E. Converse Co. (S. C.)	117	...
Eagle & Phenix Mills (Ga.)	127	...
Easley Cotton Mills (S. C.)	130	136
Enoree Mfg. Co. (S. C.)	80	85
Enoree Mfg. Co. (S. C.) Pfd.	100	102
Enterprise Mfg. Co. (Ga.)	82	90
Exposition Cotton Mills (Ga.)	174	200
Gaffney Mfg. Co. (S. C.)	89	92
Gainesville Cotton Mills (Ga.)	40	...
Glenwood Cotton Mills (S. C.)	102	154
Gluck Mills (S. C.)	94	98
Granby Cot. Mills (S. C.) 1st Pfd.	50	...
Graniteville Mfg. Co. (S. C.)	155	165
Greenwood Cotton Mills (S. C.)	92	98
Grendel Mills (S. C.)	115	...
Hartsville Cotton Mills (S. C.)	95	100
Henrietta Mills (N. C.)	200	...
Inman Mills (S. C.)	97	99
King Mfg. Co., J. P. (Ga.)	97	103
Lancaster Cotton Mills (S. C.)	102	110
Lancaster Cot. Mills (S. C.) Pfd.	95	99
Langley Mfg. Co. (S. C.)	92	96
Laurens Mills (S. C.)	160	165
Limestone Mills (S. C.)	104	...
Lockhart Mills (S. C.)	99	102
Lockhart Mills (S. C.) Pfd.	...	101
Loray Cotton Mills (N. C.) Pfd.	98	...
Louise Mills (N. C.)	90	95
Louise Mills (N. C.) Pfd.	...	102
Marlboro Cotton Mills (S. C.)	84	...
Mayo Mills (N. C.)	150	200
Mills Mfg. Co. (S. C.)	99	100
Mills Mfg. Co. (S. C.) Pfd.	99	101
Mollohon Mfg. Co. (S. C.)	90	...
Monaghan Mills (S. C.)	...	100
Monarch Cotton Mills (S. C.)	101	...
Newberry Cotton Mills (S. C.)	120	...
Ninety-Six Cotton Mills (S. C.)	92	97
Norris Cotton Mills (S. C.)	106	...
Odell Mfg. Co. (N. C.)	...	90
Orangeburg Mfg. Co. (S. C.) Pfd.	80	...
Orr Cotton Mills (S. C.)	100	104
Pacolet Mfg. Co. (S. C.)	180	190
Pacolet Mfg. Co. (S. C.) Pfd.	102	104
Pelzer Mfg. Co. (S. C.)	167	175
Piedmont Mfg. Co. (S. C.)	167	...
Poe Mfg. Co., F. W. (S. C.)	120	125
Raleigh Cotton Mills (N. C.)	...	100
Richland Cot. Mills (S. C.) Pfd.	50	...
Roanoke Mills (N. C.)	118	...
Saxon Mills (S. C.)	105	108
Sibley Mfg. Co. (Ga.)	58	63
Southern Cotton Mills (N. C.)	...	63
Spartan Mills (S. C.)	145	150
Springstein Mills (S. C.)	...	100
Trion Mfg. Co. (Ga.)	132	140
Tucapau Mills (S. C.)	170	...
Union-Buffalo 1st Pfd.	75	...
Union-Buffalo 2d Pfd.	20	...
Victor Mfg. Co. (S. C.)	115	...
Warren Mfg. Co. (S. C.)	97	100
Warren Mfg. Co. (S. C.) Pfd.	105	107
Washington Mills (Va.)	25	...
Washington Mills (Va.) Pfd.	100	105
Whitney Mfg. Co. (S. C.)	150	...
Wiscassett Mills (N. C.)	119	...
Woodruff Cotton Mills (S. C.)	115	125

Seaboard's New Loan.

The Seaboard Air Line Railway proposes to issue $18,000,000 of new 5 per cent. bonds, and this proposition will be acted upon January 10 at a meeting of the voting trust certificate holders at Petersburg, Va. Of this new issue $7,300,000 are to be issued immediately for refunding purposes, part of which covers improvements made and extensions built during the last three years. The rest of the bonds are to be issued from time to time as needed to meet other financial requirements. The issue is to be offered to stockholders at 90 and interest.

Bank Reports.

The First National Bank of High Point at High Point, N. C., reports at close of business November 12 loans and discounts, $765,059; cash in banks and vault, $133,136; capital stock paid in, $100,000; surplus and profits, $86,006; circulation, $100,000; deposits, $601,519; total resources, $1,067,526. W. J. Armfield is president; J. A. Lindsay, vice-president; E. M. Armfield, cashier, and F. C. Boyles, assistant cashier.

New Corporations.

The People's Savings Fund and Building Association of Lexington, Ky., is reported to be in operation.

It is reported that a bank is being organized at Brookhaven, Miss., with $100,000 capital by Lucian E. Schilling of Magnolia.

It is reported that a plan is being promoted by Mr. Teagarden, a banker of Greenville, to establish a bank at Caldwell, Texas.

It is reported that the new bank at Montgomery, Texas, has begun business with $10,000 capital. William Moody is president.

The Southwestern Bond & Mortgage Co. of Alva, O. T., capital $25,000, has been incorporated by G. Kletke, D. J. Dimmick and J. D. Scott.

The Bank of Milan at Milan has been chartered. The incorporators are H. S. Maloy, J. J. Meadow, J. B. McCrory and others; capital $30,000.

The People's Bank of Pinckard, Ala., is reported incorporated with $40,000 capital by Judge J. M. Carmichael, State Auditor, and parties in the vicinity of Ozark.

The Bank of Carlisle has been organized at Carlisle, Ark., with $25,000 capital. C. C. Smith is president; H. I. Buechley, treasurer, and E. A. Wilson, secretary.

The Mutual Loan & Investment Co. of Dallas, Texas, capital $5000, has filed its charter. The incorporators are W. D. Hume, J. R. Eldridge and A. Ragland, all of Dallas.

The Southern Maryland National Bank of La Plata, Md., has been authorized to begin business; capital $25,000. This is a conversion of the Southern Maryland Savings Bank.

The Pensacola Bank & Trust Co. of Pensacola, Fla., will, it is stated, begin business January 1 with O. L. Bass, president; F. L. Wilkinson, vice-president, and G. C. Scuadamore, cashier.

The Fayetteville Scottish Fire Insurance Co. has been organized at Fayetteville, N. C.; capital $100,000, surplus $25,000; president, Dr. J. V. McGougan, and R. G. Harrison is secretary and treasurer.

The S. Lemon Banking Co. of Acworth, Ga., capital $15,000, has made application for a charter. The incorporators are James L. Lemon, Orlando Awtrey and James W. McMillan.

The Fluvanna County Bank has been incorporated at Fork Union, Va., with $50,000 capital by Charles G. Snead, Fork Union; T. K. Sands, president, Richmond; F. E. Nolting, Fork Union.

The Farmers' National Bank of Madisonville, Ky., capital $50,000, has been authorized to begin business with Geo. R. Lynn, president; Otho Fowler, vice-president, and C. O. Osburn, cashier.

The Copeland National Bank at Copeland, Ga., capital $50,000, has been authorized to begin business with E. A. Copeland, president; E. W. Copeland and J. B. Williams, vice-presidents; E. A. Kimbro, cashier.

The Commercial National Bank of Brady, Texas, has been approved; capital $100,000. The organizers are W. D. Crothers, George R. White, Francis M. Newman, Willis N. White and Paul Willoughby.

The Distillers' Association of Maryland and Pennsylvania are promoting a plan to organize an insurance company at Baltimore, Md., with $1,000,000 capital. Jacob B. Cahn is president of the Monticello Company.

The Union Home & Investment Co. of Houston, Texas, capital $50,000, has been incorporated by C. H. Glenn, W. I. Williamson, H. T. Williamson and C. J. McCarty, all of Houston; George W. Hutton of Chicago.

The Letcher County State Bank has been organized at Whitesburg, Ky., with $15,000 capital, business to begin about January 1. J. H. Frazier is president; W. H. Potter, vice-president, and B. E. Caudill, cashier.

[For Additional Financial News, See Pages 38 and 39.]